DOCUMENT RESUME

ED 296 532 EC 210 300

AUTHOR Benmaman, Virginia; Schenck, Susan J.
TITLE Language Variability: An Analysis of Language Variability and Its Influence upon Special Education Assessment.
INSTITUTION Charleston Coll., SC.
PUB DATE [86]
GRANT G008300050
NOTE 140p.
PUB TYPE Reports - Descriptive (141) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS *Black Dialects; *Educational Diagnosis; Elementary Education; English (Second Language); *Gullah; *Interference (Language); Language Patterns; Language Proficiency; Language Tests; *Learning Disabilities; *Mental Retardation; Nonstandard Dialects; Second Language Instruction; Student Placement; Verbal Communication
IDENTIFIERS South Carolina (Charleston); Wechsler Intelligence Scale for Children (Revised)

ABSTRACT

This 3-year research project sought to determine whether language differences between Gullah-influenced and English speaking students in Charleston County (South Carolina) influenced test performance and subsequent interpretation of test results. A sample population of 503 educable mentally handicapped, learning disabled, and regular students (ages 7-14) were separated into two groups: those in each category who spoke standard English, and those who were Gullah-influenced. Correlations between Full Scale Intelligence Quotient (FSIQ) scores and mean language assessment scores were calculated for the two groups in each of the three categories. Results indicated that degree of control of standard English significantly affected student performance on the WISC-R (Wechsler Intelligence Scale for Children--Revised). Educational implications for possible misdiagnosis and placement are discussed in the context of an examination of the referral process in Charleston County. It is recommended that black students exhibiting Gullah influence in their speech patterns be assessed for special education placement in a manner which does not discriminate against their primary speech patterns. The degree of control of standard English must be determined. Rather than referral for special education, classes in standard English usage should be available to all students who need such instruction. (JW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED296532

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

An Analysis of Language Variability and Its Influence Upon Special Education Assessment

Virginia Benmaman
Languages Department
Susan J. Schenck
Education Department
College of Charleston

EC 210 300

Running Head: Language Variability

210 300

FINAL REPORT CERTIFICATION FORM

GRANT NUMBER: G008300050 PRINCIPAL INVESTIGATOR: Virginia Benmaman

INSTITUTION: College of Charleston COMPETITION: FIR

REVIEWER: Eileen Lehman

TITLE: Language Variability

SUMMARY OF FINAL REPORT

Purpose: The purpose of this study was to examine the language deviation factor in special education assessment and classification in t he Charleston County School District and also to develop a scale for evaluating the lingustic nature of verbal responses.

Findings: It appears that language is a variable which significantly affects the cycle of low class performance and low test scores which ends in special education placement. This study has demonstrated that a causal correlation exists between the degree of control of Standard English and scores on a standardized measure of ability. The Charleston Language Assessment Test was field tested. It had been developed from the analysis of data gathered from the sample of 360 students. A training package for the use of the linguistic scale for school psychologists was also developed.

Implication: The authors suggest that it is quite possible that a causal correlation exists also between the degree of control of standard English structure and success in language related school tasks.

TABLE OF CONTENTS

List of Tables.....iii

List of Figures.....vi

Introduction..... 1

Specific Research Questions.....12

Description of Charleston County School District.....12

Definitions.....15

METHOD.....16

Subjects.....16

WISC-R DATA Collection.....21

Language Assessment Data Collection.....24

Data Analysis.....25

WISC-R Data Analysis.....25

Language Assessment Data Analysis.....36

Comparison of WISC-R and Language Data.....84

Discussion.....93

Complexity of Gullah.....97

TABLE OF CONTENTS (Cont.)

Discussion

Diagnostic Difficulties.....98

Relevant Research on School Task Performance.....101

References.....106-110

Appendices

A Percentile Scores for All Language Assessment Subtests by Age, Language and Placement.....111-112

B Language Assessment Instrument.....113-118

C Pilot Test Results.....119-127

LIST OF TABLES

1. Distribution In Special Education by Race..... 14

2. First Year Sample Population..... 20

3. Expanded Sample Population..... 22

4. Mean WISC-R Scores Across Language Groups..... 27

5. Mean WISC-R Scores for EMH Students
Across Language Groups..... 28

6. Mean WISC-R Scores for LD Students
Across Language Groups..... 29

7. Mean WISC-R Scores for Regular Students
Across Language Groups..... 30

8. Correlations of Verbal and
Performance Subtest Difference..... 33

9. Mean Full Scale WISC-R Scores
Across Languages Groups and Placements Categories..... 34

10. Language Assessment Scores of
English and Gullah-Influenced Students by Placement..... 37

11. Grammatical Judgment Subtest Scores for English and
Gullah-influenced Students..... 45

12. Past Tense Recognition Subtest Scores for English and
Gullah-influenced Students..... 51

LIST OF TABLES (Cont.)

13. Production of Noun Plural Scores
for English and Gullah-influenced Students..... 58
14. Production of Verb + s Scores for English
and Gullah-influenced Students..... 65
15. Production of Past Tense Forms by
English and Gullah-influenced Students..... 71
16. Correlations Between FSIQ and Language
Assessment by Language Groups..... 85
17. Mean WISC-R FSIQ Scores and Language
Assessment Scores by Placement and Language Groups..... 87
18. Percent Increase In Average Scores
for Students From EMH to Regular Education Placements..... 90
19. Percent Increase In Average Scores
for Students from LD to Regular Education Placement..... 92

LIST OF FIGURES

1. Mean Language Assessment Scores for Regular Education Students by Age In Percent..... 40

2. Mean Language Assessment Scores for LD Special Education Students by Age In Percent..... 42

3. Mean Language Assessment Scores for EMH Special Education Students by Age in Percent..... 44

4. Mean Grammatical Judgment Scores for Regular Education Students by Age in Percent..... 47

5. Mean Grammatical Judgment Scores for LD Special Education Students by Age In Percent..... 48

6. Mean Grammatical Judgment Scores for EMH Special Education Students by Age in Percent..... 50

7. Mean Past Tense Recognition Scores for Regular Education Students by Age in Percent..... 53

8. Mean Past Tense Recognition Scores for LD Special Education Students by Age in Percent..... 54

9. Mean Past Tense Recognition Scores for EMH Special Education Students by Age in Percent..... 56

10. Mean Production of Noun Plural Scores for Regular Education Students by Age in Percent..... 60

11. Mean Production of Noun Plural Scores for LD Special Education Students by Age in Percent..... 61

12. Mean Production of Noun Plural Scores for EMH Special Education Students by Age in Percent..... 63

13. Mean Production of Verb Plural Scores for Regular Education Students by Age in Percent..... 66

14. Mean Production of Verb Plural Scores for LD Special Education Students by Age in Percent..... 67

15. Mean Production of Verb Plural Scores for EMH Special Education Students by Age in Percent..... 69

16. Mean Production of Past Tense Scores for Regular Education Students by Age in Percent..... 72

17. Mean Production of Past Tense Scores for LD Special Education Students by Age in Percent..... 74

18. Mean Production of Past Tense Scores for EMH Special Education Students by Age in Percent..... 75

FINAL GRANT REPORT

INTRODUCTION

The College of Charleston was awarded a three year research grant from the U.S. Department of Education, Office of Special Education Programs in March, 1983. The purpose of the project, under the direction of Dr. Virginia Benmaman and Dr. Susan J. Schenck, was to determine if language differences between Gullah-influenced and English speaking students is a factor which influences test performance and subsequent interpretation of test results. Specifically of interest was the extent to which language difference impacts upon the eventual placement of students in special education classes for the educable mentally handicapped (EMH) and the learning disabled (LD). It was hypothesized that language variation affects test scores which results in faulty diagnosis and inappropriate placement in special education.

Charleston County is a geographically and linguistically unique region. The county spans three distinct sectors. The urban areas are the peninsula, Charleston city proper, and the city of North Charleston. Both have a high population density and provide industrial, retail and service functions. The suburban areas represent the non-industrial residential rings which surround the urban centers and can be characterized as serving

primarily bedroom area functions. The sea islands which are linked to the mainland by bridges reflect a typically agricultural region and have a low population density.

The "Low Country" as the Carolina Coastal Plain is locally designated, has been the home of the Gullah community, a unique cultural and lingusitic entity among the Black American population, one that has been characterized as peripheral to the main current of acculturation of the Afro-American (Stewart, 1973). The history of the region shows that the sea islands separated geographically from the mainland by water, have been predominantly agricultural since colonial times.

While the damp climate and widespread occurrence of malaria retarded the growth of the white population, the extensive production of rice, indigo and cotton led to the establishment of plantations run almost exclusively by negro labor. Isolated from the mainland and from Southern Whites, these plantation slaves came into contact only with native Africans, those new slaves who were imported directly from Africa during the 18th and first half of the 19th century. Thus, their speech habits and customs were constantly strengthened and reinforced by sharing with these newcomers and with older Gullahs the isolation of the Sea Islands(Wood, 1974). "This condition", writes Turner (1969),

"...made easier the retention of Africanisms in this area than in other places where Negroes had less contact with Africa and lived less isolated lives" (Turner, 1969, p. 5). One should not be surprised, therefore, to find among the Gullahs today, numerous African customs and speech habits.

The speech habits to which Turner refers developed historically from a pidgin consisting of English and a variety of West African languages such as Yoruba, Efik and Igbo spoken on the plantations by the Negro slaves (Turner, 1969). This pidgin, or contact language, is a variety of language that has a less complex grammar and a more reduced vocabulary than the unpiginized source languages (Hall, 1966). While the vocabulary may be predominantly borrowed from the target dominant language, in this case, English, the underlying syntax is very much influenced by the speaker's native language, in this case, African languages. If a pidgin becomes the native language of a speech community, usually by the second generation of use, it becomes by definition a creole. The language gradually expands in grammatical and lexical resources to meet the communication needs of its speakers and may eventually take on a level of grammatical complexity comparable to unpidginized languages. It is important to remember that a creole language, though superficially similar to

the target language, exhibits definite structural differences which arose during the pidgin stage.

The expansion of this American planation creole, Gullah, was influenced by the social and political climate of the post civil war era. One must bear in mind that the isolation of the sea islands by marshes, rivers and tidal inlets, and the high proportion of Blacks on the islands perpetuated use of Gullah. With the breakdown of the planation system and with increased contact between Blacks and Whites, the creole English of the former began to lose some of its characteristics and take on more and more of the features of the language spoken by Whites.

The process of linguistic acculturation, a gradual merger of a low prestige speech form with the mainstream prestige language variety(in this case, Standard English) is called decreolization (Bloomfield, 1933). In a extensive discussion of decreolization, Stewart(1973) explains that the phenomenon progresses at an uneven rate for a community as well as for an individual speaker. Therefore, in both instances, a number of coexistent speech forms will be observable ranging from the deepest or oldest creole to some immediate forms not found in the creole, and finally to Standard English forms.

The rate of decreolization has been accelerated since the 1940's when bridges were constructed connecting the sea islands to the mainland. Jones-Jackson (1984) reports that the demographic data of the sea islands show a significant change in the racial composition of the more accessible islands. Furthermore, industrialization and commercialization pressures together with increased mobility of the younger generations has caused major shifts in population and has facilitated cultural and linguistic contact with the outside community.

Given the social and economic forces brought to bear on the Gullah community in the last several generations, one may also use DeCamp's term "post-creole" to describe the linguistic situation of the native Black population of Charleston County (DeCamp, 1971). Post-creole describes a situation in which the creole coexists with a dominant language and in the process of merging develops a continuum. Linguistic forms on this continuum reflect varying degrees of Gullah influence which can be defined as Gullah, Nonstandard English, or Standard English. DeCamp has pointed out that for a post-creole stage to exist certain condition must be present.

First, the dominant official language must be

> the standard language corresponding to the creole... Second, the formerly rigid social stratification must have practically(not completely) broken down. That is, there must be sufficient social mobility to motivate large numbers of creole speakers to modify their speech in the direction of the standard, and there must be a sufficient program of education and other acculturative activities to exert effective pressures from the standard language on the creole. These corrective pressures do not operate uniformly on all creole speakers. Otherwise the result would be merely a uniform narrowing of the gap between creole and standard, not a language continuum. Rather these acculturative influences impinge on the different speakers with varying degrees of effectiveness, drawing some of them more than others toward the standard. The degree of acculturation varies with such factors as age, poverty and isolation from urban centers.
>
> (p. 351)

The difference in speech behavior which most Black school children in Charleston County demonstrate falls along the post-creole continuum and has resulted in a linguistic mismatch

in the classroom. The majority of Black children born in Charleston County do not demonstrate full control of Standard English. Nevertheless, the teachers in the school system expect students to conform to the speech behavior which falls within the parameters of Standard English. Many teachers do not understand the nature of dialect differences in general and in particular, have little appreciation of the impact of Gullah-influenced speech behavior on school related tasks. Consequently, they tend to attribute the use of nonstandard English to intellectual deficiences and learning disabilities.

As in other school districts, students in Charleston County with suspected intellectual deficiences or learning problems are referred to the special education system for educational and psychological testing. Many of the instruments used in identification of a mentally handicapped and/or learning disabled individual have a large percentage of language-related tasks. Examples of these tests are the Wechsler Intelligence Scale Revised (WISC-R), the Wide Range Achievement Test(WRAT), the Peabody Individual Achievement Test (PIAT), and the Gray Oral Reading Test. The performance of language related tasks by students with Gullah-influenced speech may not be appopriately assessed. Such misinterpretations could result in the classification of students as mentally handicapped or learning

disabled, whereas a more accurate assessment might result in the identification of these students as linguistically different and in need of special language instruction(Baratz, nd; Hutchinson,1972; Roberts,1970).

At present there are no precise testing instruments which can distinguish between students with a mental handicap or a learning disability and students with true language differences. It is probable that both sets of students are currently placed in special education and identified as mentally handicapped or learning disabled based on their performance in class and on the assessment battery, with no consideration given to the impact of a language difference variable. It is also likely that students with Gullah-influenced language behavior, but with no intellectual deficiencies or learning problems, do not benefit from the special education program. Instead, they may be negatively affected by special education. It is suggested that a program of regular education with special language classes that provide a curriculum addressing linguistic differences would be far more appropriate and beneficial for them.

There have been examinations of the effect of cultural bias in assessment in relationship to special education placement

(Cummings, 1977, Guy, 1977, Jenson, 1975, Mercer, 1973). Yet a review of the major research literature reveals that little attention has been given to the effect language or linguistic differences may play in assessment. Indeed, the vast majority of the research examined concerned with language difference as a basis for nondiscriminatory assessment deals with bilingualism, primarily with the Spanish speaking student. Oakland and Matusek (1977) indicated that among Black children, language bias may be encountered when testing those students who exhibit Nonstandard English speech patterns. Others (Bartell, Grill and Bryen, 1973; Gay and Abrahams,1973) have noted that the language style utilized in some tests differs from the language patterns exhibited by many Blacks. Alley and Foster (1978) postulated that testing may be biased even if the student's primary language is English, if the testing does not account for differing cultural and subcultural information, learning strategies and value systems. Quay (1971) using a Standard-Binet, form L-M that had been translated into Black English, found that IQ scores were not significantly different when students who spoke Black English were administered that test. This also held true for the Wechsler Preschool and Primary Scale of Intelligence.

In determining if language is a contributing factor in lower test scores and eventual placement in special education, one must

first determine the student's primary language. Public Law 94-142 requires that any assessment conducted be nondiscriminatory. According to Alley and Foster (1978) a nondiscriminatory assessment device is one which "results in similar performance distributions across cultural groups, who may differ with one another in any or all of the following: language and dialect, value systems, information and learning strategies" (p. 560). While numerous studies have been conducted examining varying aspects of nondiscriminatory assessment (See Mercer, 1974; Sattler, 1974; Mercer & Lewis; 1977; Alley & Foster; 1978) there has been a paucity of studies examining the role of language differences in nondiscriminatory testing as mandated by PL 94-142.

A number of tests have been developed to assess language skills and language dominance for use with Hispanic children. While a good deal of attention has been focused on the language of Spanish-speaking students, the major focus with Black students has been on cultural bias. Several culture-free and culture-fair tests such as the IPAT Culture-Fair Intelligence Test (Scale 2 and 3) (Cattell & Cattell, 1960, 1963) and the Leiter International Performance Scale (Arthur, 1950), and content-specific tests, such as the Black Intelligence Test of Cultural Homogeneity or BITCH (Williams, 1971), have been

developed. Cultural factors not withstanding it is vital that the dominant language of a student be determined if nondiscriminatory assessment is to occur. The investigators in this study have postulated that the degree of control of Standard English is a contributing factor in the eventual referral of some Black students to the special education system. Once in the special education referral process, their performance on various assessment measures, such as the WISC-R, may also be affected by their degree of control of Standard English.

A key aspect to bear in mind when determining if language variation is a contributing factor in poor test performance, as noted by Anastasi and Cordova (1953), is the way in which two languages were acquired. Sattler (1974) stated that a student who must use one language at home and another language at school will experience difficulty in mastering both languages, whereas the student who, "learns to express himself in at least one language in all types of situations will have minimal handicaps, if any" (p. 35). In accordance with Sattler's view, Beberfall(1958), Chavez(1956) and Perales(1965) found that the speech patterns developed by the use of one language can interfere with correct usage of another. Holland (1960) postulated that a child who must deal with a school language and

a home language may not become efficient in either language. A child who is not efficient in either his/her home or school language would be handicapped when faced with an assessment device in which control of the dominant language is necessary for success.

Specific Research Questions

This research endeavor was designed to provide information in reference to the following questions:

1. To what extent do the linguistic differences of English and Gullah-influenced speaking students in Charleston County affect the assessment process used for special education placement?

2. Will a language assessment device instrument provide the necessary information to determine the degree of control over Standard English which students possess?

Description of Charleston County School District

Charleston County School District serves approximately 33,794

students (Charleston County Ten Day Report, 1984). Approximately 1% are Hispanic, Vietnamese and other non-White or non-Black groups. The total number of White and Black students is 33,284. Of this number, 17,562 students(52%) are Black and 15,722 (47%) are White. Of this population, 2,010 students were placed in self-contained special education classes according to the ten day report. Table 1 illustrates the racial distribution in the two major special education categories used in this investigation - Mentally Handicapped and Learning Disabled.

TABLE 1 ABOUT HERE

The ten day report indicated that the two racial groups are fairly equally represented in the total school population. However, when one compares the percentage of students in the two special education classes under examination relative to the racial distribution in the school district, it is obvious that the Black population is significantly overrepresented in these classes. Eighty four (84%) percent of the EMH students are Black from a school population that is 52% Black. Fifty-five (55%) percent of the LD students are Black. Of 1,424 students (See Total in Table 1) 67% are Black. This indicates a representation

Table 1

Distribution In Special Education by Race

	Race		
	Black	White	Total
Placement	(N=17,562(52%)	(N=15,722(48%)	(N=33,284)
EMH	500(84%)	98(16%)	598
LD	457(55%)	369(45%)	826
Total	957(67%)	467(33%)	1424

in excess of 15% in EMH and LD placement in these special education classes relative to the Black school population.

DEFINITIONS

For the purposes of this investigation, the following definitions of handicapping conditions employed in Charleston County were used by the principal investigators in determining the sample population:

1. REGULAR refers to students with no identified mental handicaps or learning problems who were enrolled in regular classrooms.

2. EDUCABLE MENTALLY HANDICAPPED (EMH) refers to "those children who exhibit significant subaverage intellectual functioning which exists concurrently with deficits in adaptive behavior, and manifested during the development period" (P. L. 94-142).

3. SPECIFIC LEARNING DISABILITY (LD) refers to "those children who have a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to

listen, think, speak, read, write, spell or to do mathematical calculations. Such disorders include such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. Such term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, or mental retardation, of emotional disturbance, or of enviromental, cultural or economic disadvantage" (P.L. 94-142).

3. GULLAH-INFLUENCED refers to Black students born in Charleston County whose speech pattens exhibit Gullah influence.

4. ENGLISH refers to those White students born in monolingual English speaking homes who speak Standard English.

METHOD

Subjects

The sample population consisted of EMH, LD and Regular students from the ages of seven through fourteen. The EMH students are identified by the Charleston County school system as those whose scores on the WISC-R are below 70 and who exhibit deficits in adaptive behavior which is manifested during the developmental period. Learning Disabled students are identified as those

students whose scores on the WISC-R are above 70, but who exhibit discrepancies between achievement and potential. The Regular students are those who are placed by the Charleston County school system in the regular education classes.

The variables of Gullah-influenced speech and English were defined in this investigation by racial and ethnic membership using the following criteria. Gullah-influenced subjects were selected from those Black students in the Charleston schools who were born in the greater Charleston area. The great majority of Black children born in the county evidence some Gullah influence in their language system as a result of family and social network interactions. To further insure sole inclusion of subjects with Gullah-influenced speech patterns, tape recordings made of each subject were analyzed to identify Gullah linguistics features. Subjects whose speech did not reflect Gullah influence were eliminated from the sample as were those born outside of the Charleston area.

One must bear in mind that the term Gullah-influenced does not refer to one lingusistic system within specified boundaries; rather it reflects a variety of phonologic, morphologic and syntactic features which range from deeper and older Gullah forms

to those patterns which closely resemble the Standard English of Charleston. Linguistic acculturation of the Gullah community has not been uniform or complete. Thus, speakers exhibit a variety of features that represent stages of language change along a continuum. Some children born of Gullah-speaking parents may acquire English features and eliminate certain Gullah forms as they are exposed to English, while retaining still other Gullah forms. Others may learn to code switch between the two structurally different language systems. Consequently, the degree of Gullah influence reflected in the speech of these children will vary. It is important to remember that this influence represents a continuum of speech variables.

The term "English" is designated to White native born American subjects who come from monolingual English speaking homes. The majority of the subjects in this group were born in Charleston County, although this sample was not limited to those native to this area. While some dialect variation did exist, the differences were not at the structural level as was found among the Gullah-influenced group. Tape recordings made of each subject were analyzed to verify appropriate placement in this category. Any students whose speech patterns did not conform to the parameters of Standard English were eliminated from the sample.

During the first year of the investigation, a random sample of sixty Charleston County elementary and middle school children was drawn from the school rolls in regular and special education EMH and LD self-contained classes. Ten subjects were drawn from each category across language (English, Gullah-Influenced) and placement (EMH, LD, Regular) as illustrated in Table 2.

TABLE 2 ABOUT HERE

Permission slips were obtained from those students selected as part of the subject population. The students were administrated the WISC-R, the WRAT, the Gray Oral Reading Test, and the Test of Reading comprehension (TORC). Initial analysis of the results, particularly the WISC-R results, indicated that a larger sample was required to conduct a statistically significant investigation. Consequently, the following year the sample size was increased to 503. Permission request forms were mailed to the families of all students enrolled in self-contained special education classes for the educable mentally handicapped and the learning disabled. Forms were also mailed to approximately 150 randomly selected students in regular education classes. The sample population of 503 was selected from 37 elementary and middle schools across Charleston County. Urban, suburban and

Table 2

First Year Sample Population

	Language	
Placement	English	Gullah-influenced
EMH	10	10
LD	10	10
Regular	10	10

rural areas were represented in the sample.

For the expanded sample population of 503 students, only the results of the WISC-R and the language assessment test were analyzed. The WISC-R scores were collected from the files of special education students, while 47 (20 English, 27 Gullah-influenced) regular students were administered the WISC-R by project staff. Three hundred forty nine (349) students were administered the language assessment test.
The sample population is illustrated in Table 3.

TABLE 3 ABOUT HERE

Procedure

WISC R DATA COLLECTION

For those special education students who provided the investigators with permission slips, WISC-R scores were collected from school files. Of those regular education students who provided the investigators with permission slips, WISC-R assessments were administered to 47 (20 English and 27 Gullah-influenced) by one of the principal investigators. WISC-R

Table 3

Expanded Sample Population.

	Language		
Placement	English	Gullah-Influenced	Total
EMH	67	96	163
LD	109	103	212
Regular	62	66	128
Total	238	265	503

scores were collected from the files of approximately 311 special education students who fell into the following categories: English EMH (N=51), Gullah-influenced EMH (N=74), English LD (N=103), and Gullah influenced LD (N=83).

For the purposes of comparing WISC-R profiles, only the first WISC-R administered to special education students was used. Since all regular students had never received a WISC-R, the scores obtained during the investigation were used for the analyses.

It was suspected that among the sample taken were students who were classified as either EMH or LD but who were not truly members of these categories. These students may have been misclassified because their lack of knowledge of Standard English resulted in poor performance on the WISC-R. To provide an independent assessment of intelligence the Hiskey-Nebraska test of Learning Abilities was administered to a subsample of the subjects in each of the previously described categories. The Hiskey-Nebraska Test of Learning Abilities (Hiskey, 1941) was developed initially for deaf children as a means of assessing intelligence without relying on verbal performance. The test has also been normed on hearing children (Hiskey, 1955). During the administration of the Hiskey-Nebraska to the subsample, students

in all three categories experienced serious difficulty in understanding the directions, and subsequently performed poorly across the board. Because of unusually low performance and inconsistency within categories, the decision was made not to use the Hiskey-Nebraska as an independent means of intelligence assessment.

LANGUAGE ASSESSMENT DATA COLLECTION

It is important to keep in mind that knowledge of Gullah was not a parameter examined in this investigation. Since knowledge of English is a critical factor affecting academic performance, it was necessary to determine the degree of control over Standard English that this population possessed. For this purpose an eight part linguistic assessment was administered to 349 students (English 174, Gullah-influenced 175). Five of the subtests were analyzed for this study. The test was designed to measure knowledge of different aspects of the structure of English. The instrument used had been previously developed by Dr. John Roy. He granted permission to the principal investigators to use his instrument in this investigation. The five subtests measure judgment of grammaticality (100 items), discrimination between present tense and past tense forms

(50 items), production of noun plural (52 items), production of third person singular verb forms (50 items) and production of past tense (50 items).

DATA ANALYSES

Multiple comparisons were made during the analyses. The selected significance level of 0.10 was divided by the total number of comparisons made to arrive at the significance level used in the individual analyses for language assessment and WISC-R. Only one-tailed tests were conducted, testing whether English language groups scored higher than Gullah-influenced language groups.

WISC-R ASSESSMENT DATA ANALYSES

A total of 357 students included in the sample (173 English, 184 Gullah-influenced) had WISC-R's either administered (47 Regular) by project staff or had WISC-R scores collected from their school files (127 EMH, 184 LD).

Overall WISC-R performance was examined across language groups (English, Gullah-influenced) and across placement categories (EMH, LD, Regular). Twenty one comparisons were conducted on the WISC-R data and the significance level was calculated to be

0.0048. Table 4 illustrates that there are significant differences between the two language groups on all of the scores obtained on the WISC-R.

TABLES 4-7 ABOUT HERE

A closer examination of WISC-R scores in each of the three placement categories by language groups reveals, as noted in Tables 5 thru 7, that there are no significant differences in WISC-R performance in the EMH placement. However, significant differences are noted in the LD and Regular categories between English and Gullah-influenced speakers.

As Table 6 illustrates, significant differences in WISC-R IQ scores are evident for the LD placement category between the language groups. For students placed in Regular Education(Table 7) there is no significant difference in Verbal IQ performance for this sample, while significant differences occur in the Performance and Full Scale IQ scores. This aberration is probably due to the small sample size for this placement category. VIQ and PIQ scores are highly correlated. The FSIQ is a composite of VIQ and PIQ. If PIQ and FSIQ are significantly different between language groups then it can be assumed that VIQ is also significantly different in the Charleston County

Table 4

Mean WISC-R Scores Across Language Groups

	Language				
	English (N=173)		Gullah-Influenced (N=184)		
WISC-R IQs	$\bar{X}$	Sd	$\bar{X}$	Sd	P-value
Verbal IQ (VIQ)	82	18	76	15	0.0005*
Performance IQ (PIQ)	88	22	79	17	0.0001*
Full-Scale IQ (FSIQ)	84	20	79	23	0.0044*

*P .0048

Table 5

Mean WISC-R Scores for EMH Students Across Language Groups

	EMH				
	English (N=51)		Gullah-Influenced (N=74)		
WISC-R IQS	$\bar{X}$	Sd	$\bar{X}$	SD	P-value
VIQ	62	12	64	10	0.15
PIQ	67	11	66	9	0.29
FSIQ	62	10	62	8	0.50

Table 6

Mean WISC-R Scores for LD Students Across Language Groups

	LD				
	English (N=103)		Gullah-Influenced (N=83)		
WISC-R IQS	$\bar{X}$	Sd	$\bar{X}$	Sd	P-value
VIQ	89	13	82	12	0.0001*
PIQ	94	16	86	11	0.0001*
FSIQ	90	13	82	10	0.0001*

*P .0048

Table 7

Mean WISC-R Scores for Regular Students Across Language Groups

	Regular				
	English (N=20)		Gullah-Influenced (N=27)		
WISC-R IQS	$\bar{X}$	Sd	$\bar{X}$	Sd	P-value
VIQ	96	13	92	12	0.1379
PIQ	117	19	97	20	0.0003*
FSIQ	107	15	95	16	0.0045*

*P .0048

schools. The fact that this small sample of 20 English and 27 Gullah-influenced students does not demonstrate this difference, doesn't nullify this assumption.

These analyses suggest that for the EMH category, students regardless of language group exhibit equivalent scores. The scores of the English speaking LD students on all aspects of the WISC-R is significantly better than the performance of the Gullah-influenced LD students. Significant differences are noted between the Regular English speaking group and the Gullah-influenced group on the Performance and Full Scale IQ's, yet there is no significant difference in the Verbal scores. Comparisons of WISC-R profiles within language group (English, Gullah-influenced) but across placement categories (EMH, LD, REGULAR) reveals that there is a significant difference in scores across all categories. Students in the English sample scored, as noted in Table 4, six points higher on Performance than on Verbal, while Gullah-influenced students scored three points higher on Performance IQ than on the Verbal IQ. This pattern is repeated within each placement category, as noted in Tables 5-7. As illustrated in Table 8, the difference between Verbal and Performance scores are not significantly different for either language group and across placement categories.

TABLE 8 ABOUT HERE

Since a common pattern of WISC-R scores within the English and Gullah groups emerged with no significant difference between the two language groups, the investigators decided to use only the Full Scale score for comparative purposes in further analyses.

Table 9 contains the comparisons of the Full Scale scores across placement and language categories.

TABLE 9 ABOUT HERE

Upon closer examination of these results, it is evident that there are significant differences in WISC-R Full Scale scores across placement categories for each language group. Full Scale IQ increases from EMH to LD to Regular groups for both languages. A further study of the results indicates that there also exist significant differences in WISC-R Full Scale scores between language groups except for the EMH category. The question that remained to be examined concerned the reason for

Table 8

Correlations of Verbal and Performance Subtest Differences.

	Language		
Placement Difference	English	Gullah-influenced	P-value
Overall PIQ-VIQ	6	3	0.214
EMH PIQ-VIQ	5	2	0.133
LD PIQ-VIQ	5	4	0.359
Regular PIQ-VIQ	21	5	0.008

Table 9

Mean Full Scale WISC-R Scores Across Language Groups and Placement Categories

	Placement			
Language	EMH	LD	Regular	P-value
ENGLISH FSIQ	62(n=51)	90(n=103)	107(n=20)	0.0001*
GULLAH FSIQ	62(n=74)	82(n=83)	95(n=27)	0.0001*
P-values	* *	0.0001*	0.0001*	

*P .0048

**not significantly different

the differences in scores between the language groups in the Regular and LD placement categories. The investigators hypothesized that such a difference could be attributed to several reasons. For the English group, the differences could be due to the disability exhibited by the student. The investigators suspected that the Full Scale IQ would decrease as the severity of the disability increased. For the Gullah-influenced group, however, it was suspected that the degree of control of Standard English would impact on the student's performance on the WISC-R. It was postulated by the investigators that as control of Standard English decreased for this group, Full Scale IQ would also decrease.

If it can be demonstrated that language does indeed play a significant role in the Gullah-influenced student's ability to perform well on the WISC-R, then it must be assumed that many Gullah-influenced students currently in special education classes for the EMH and LD are inappropriately placed. The results of the WISC-R assessment and the Language assessment were compared to determine if there is a relationship between language performance and performance on the WISC-R.

After a discussion of the analyses of the language assesssment,

the results of the analyses of the WISC-R and Language Assessment comparison will be reviewed.

Language Assessement Data Analyses

Of the random sample of students selected from Charleston County Schools, 349 received the test of language assessment. They formed the following categories: English EMH (N=57) English LD (N=59), English Regular (N=58), Gullah-influenced EMH (N=55), Gullah-influenced LD (N=60), Gullah-influenced Regular (N=60). The scores for overall language assessment which is the summation of the 5 subjects (302 items) and the individual subtests were analyzed. Eighteen comparisons were made. The overall level of significance for the language assessment analyses is .10. The level of significance for individual comparisons is 0.0056 (0.1/18). All stated p-values are significant unless otherwise indicated. Overall language assessment was compared for the two language groups (English and Gullah-influenced) and across the three placement categories (EMH, LD, Regular). Table 10 shows that in overall language performance the Gullah-influenced group consistently scored lower than the English group.

TABLE 10 ABOUT HERE

Table 10

Language Assessment Scores of English and Gullah-influenced Students by Placement

	Language				
	English		Gullah-influenced		
Placement	Score	Percent	Score	Percent	p-value
EMH	156	52%	121	40%	<.0005
LD	241	81%	160	53%	<.0005
Regular	278	92%	230	76%	<.0005

Differences between English and Gullah-influenced students in Regular Education is 16%, in LD placement 28%, and in EMH placement 12%. Also noteworthy is the significant decrease in the knowledge of English structures for both groups across placement categories. Performance for the Gullah-influenced groups decreases from the level displayed in Regular Education by 23% in the LD classes and 36% in the EMH classes, while a 12% and a 40% decrease is observed for the English groups from Regular Education to the LD and EMH classes respectively.

A closer examination of the performance profiles in each placement category by age of the students reveals a number of interesting patterns.

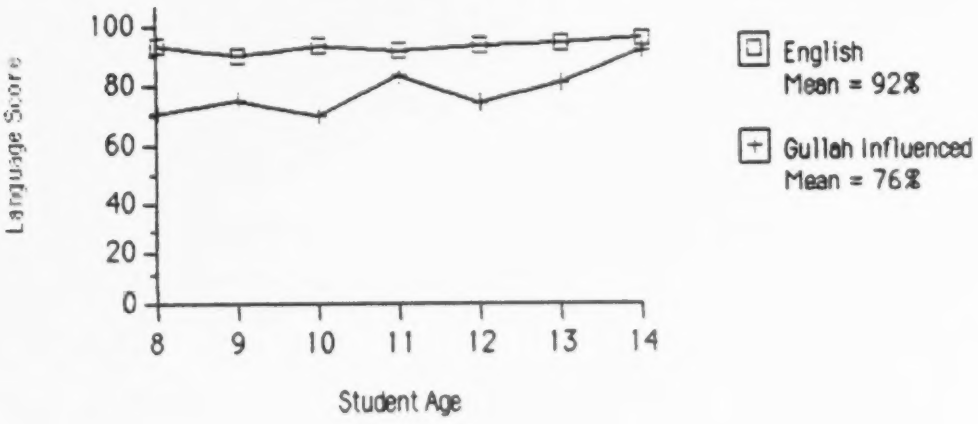
In Figure 1, by comparing the profiles of the two language groups in Regular Education, one can observe a difference in the rate and quantity of acquisition of control over these English structures between the English and Gullah-influenced students. The English group demonstrates a high degree of mastery by age 8. On the other hand, the Gullah-influenced group exhibits less knowledge of English structures between the ages of 8 and 10. As this group grows older, they gradually achieve a degree of control approaching that of the English group.

Peak performance occurs at age 14. It would seem that exposure to formal education in Standard English coupled with acculturation to the social and linguistic conventions of the larger community over a period of years has enabled this group to acquire a high degree of control of Standard English linguistic features. However, the mean percentile differences indicate that the Gullah-influenced group demonstrates 16% less control of the Standard English features tested.

FIGURE 1 ABOUT HERE

Figures 2 and 3 reveal that a different pattern emerges with the special education classes. In both LD and EMH categories the quantitative differences in the knowledge of English structures between the English and Gullah-influenced language groups is significant as well, with the most notable difference appearing in the LD group. In Figure 2, comparison of the mean assessment scores for LD placement shows that as in the Regular classes, the Gullah-influenced group in LD scores much lower than the English group at ages 7-8. Both groups demonstrate increases in their knowledge of English structure as they grow older. The rate of

Figure 1
Mean Language Assessment Scores for Regular Education Students by Age in Percents



growth is similar for both groups as noted by the parallel lines which rise in tandem across age. Both groups peak at about the same age, 13-14. The trend, then, for the LD students is one of slow growth over time. However, the mean difference of 28% between the two language groups shows that the Gullah-influenced LD students have significantly less control of Standard English than their English LD counterparts. Even though acculturative forces and school instruction appear to have an impact on the acquisition of Standard English structures, the gap between the two language groups remains undiminished.

FIGURE 2 ABOUT HERE

The EMH profiles for the two language groups across age (Figure 3) are significantly lower than the other two placement categories. Students in this special education program fall far below the expected level of mastery of the linguistic features examined by age 8. While the English group does demonstrate an increase in linguistic control over time, peaking at age 11, the Gullah-influenced group quantitatively demonstrates no appreciable gain in control of Standard English.

Figure 2
Mean Language Assessment Scores for LD Special Education Students by Age in Percent

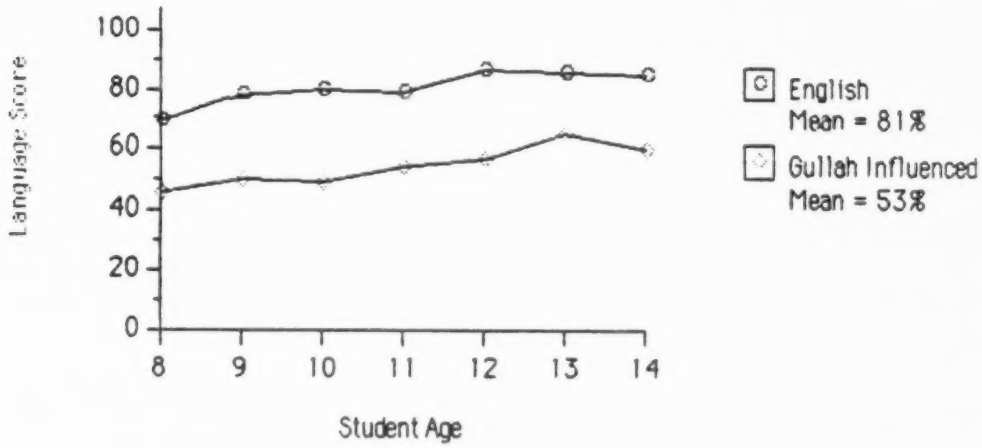


FIGURE 3 ABOUT HERE

In order to determine whether the performance profiles were consistent for all of the five features of English tested, it was necessary to examine the data obtained on each of the language subtests. The subtest of grammatical judgment determined how well the subjects were able to distinguish English sentences from non-English sentences. Of the one hundred sentences presented orally, fifty were English. Of these, thirty four were active and sixteen were passive. Present, past and future tense was included with examples of simple, progressive and perfect forms in each tense. Students were instructed in the following manner: "Listen to the following sentences. Say 'yes' if you think the sentence is good English, and say 'no' if you think the sentence is not good English." Table 11 shows the performance of the two language groups in the three placement categories. As in Table 10, the evidence here points to a lower degree of accuracy for the Gullah-influenced group, and a decline in the accuracy of judgment for the both language groups in special education.

TABLE 11 ABOUT HERE

Figure 3
Mean Language Assessment Scores for EMH Special Education Students by Age in Percent

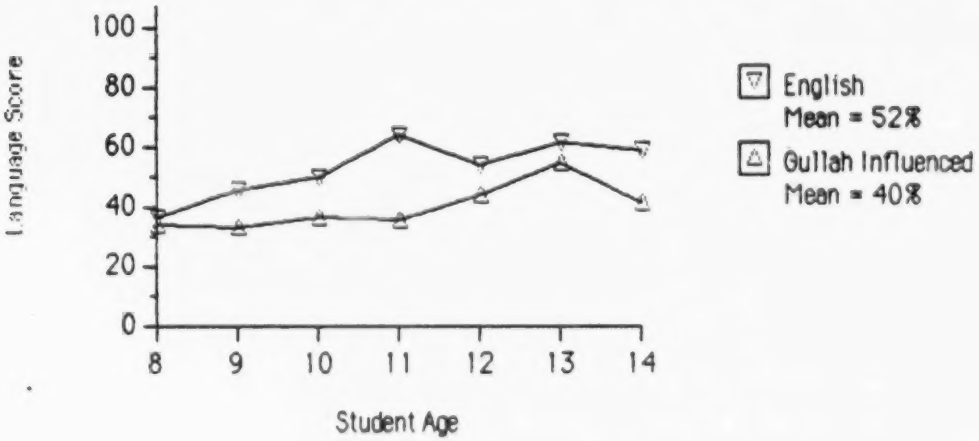


Table 11

Grammatical Judgment Subtest Scores for English and Gullah-influenced Students

	Languages				
	English		Gullah-influenced		
Placement	Score	Percent	Score	Percent	p-value
EMH	59.2	59.2	54	54	0.0041
LD	76	76	63	63	<.0001
Regular	85	85	76	76	<.0001

Comparison of the scores for the three placement categories shows that the differences in performance between the two language groups are relatively smaller than in the overall language assessment comparisons. The profiles across age are more parallel, indicating that a similar rate of increase in perception of grammatical correctness occurs for the two language groups relative to age.

Figure 4 shows the mean difference in Regular Education placement to be 90%.

FIGURE 4 ABOUT HERE

Figure 5 reveals that a mean difference of 13% exists between English LD and Gullah-influenced LD students.

FIGURE 5 ABOUT HERE

Figure 4
Mean Grammatical Judgement Scores for Regular Education Students by Age in Percent

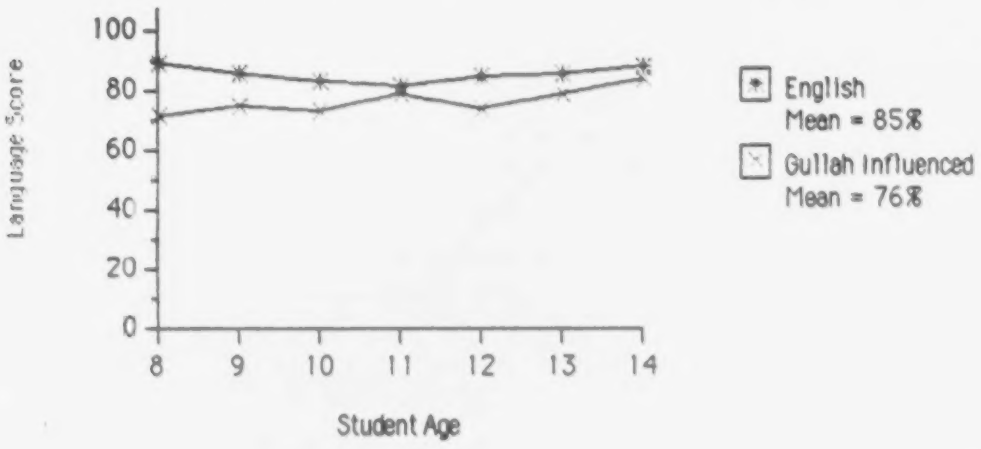


Figure 5
Mean Grammatical Judgement Scores for LD Special Education Students by Age in Percent

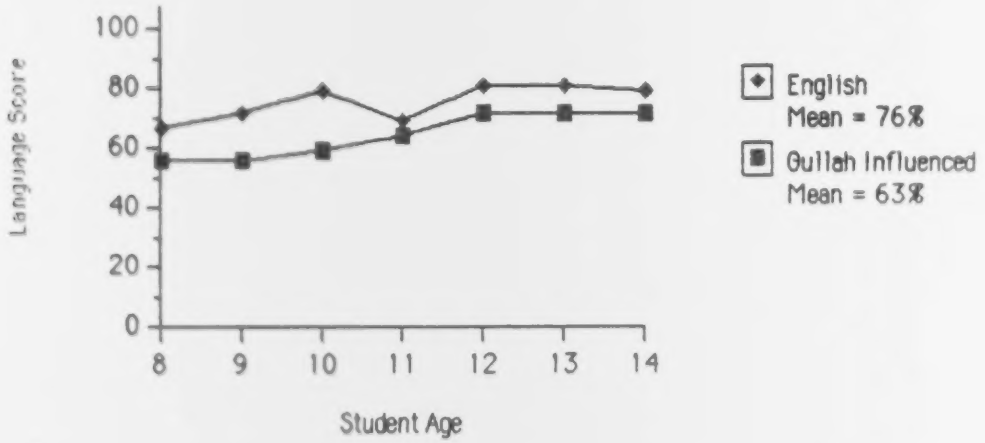


Figure 6 shows that a mean difference of 5% exists between the two language groups in EMH placement.

FIGURE 6 ABOUT HERE

The test for tense discrimination consisting of fifty pairs of sentences was administered to determine how well the students could discriminate present tense forms from past tense forms of weak verbs. The students were instructed to listen to two short sentences and state whether they were the same or different. In each instance the verbs were both in present tense, both in past tense, or one was in present tense and the other in past tense. Table 12 presents a comparison of scores which indicates that the Gullah-influenced group scored lower than the English group in the Regular Education and LD categories, but slightly higher in the EMH category. Although there was an 10% difference for LD placement and a 6% difference for Regular placement, both showed a higher degree of accuracy in the ability to discriminate between inflected and uninflected verb forms than for overall language assessment. Both language groups evidenced a decline in discimination accuracy in special education.

TABLE 12 ABOUT HERE

Figure 6
Mean Grammatical Judgement Scores for EMH Special Education Students by Age in Percent

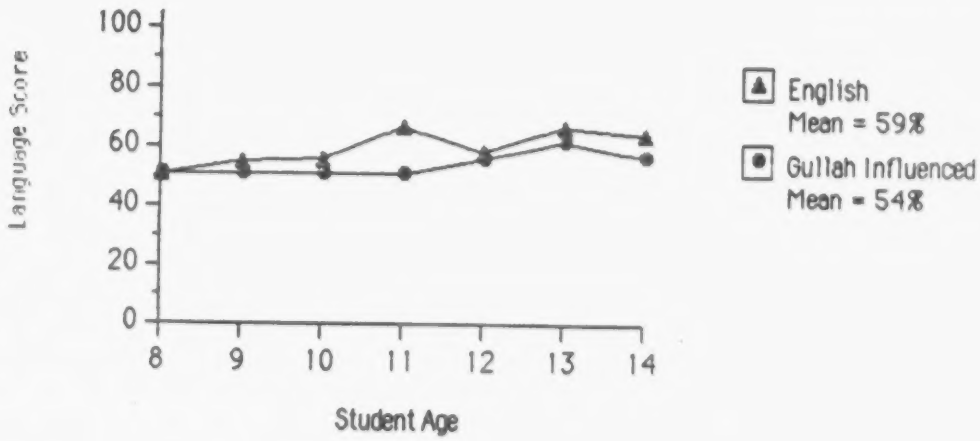


Table 12

Past Tense Recognition Subtest Scores for English and Gullah-influenced Students

	Language				
Placement	English		Gullah-influenced		p. value
	Score	Percent	Score	Percent	
EMH	32	64	33	66	0.3300*
LD	45	90	40	80	<.0001
Regular	48	96	45	90	<.0001

*not significantly different

Figure 7 shows the mean past tense recognition scores of the two language groups in Regular Education. Performance by the two groups remains fairly constant across a six year span in their ability to discriminate phonological difference between past and present forms. The demonstrated level of ability was achieved by age 8.

FIGURE 7 ABOUT HERE

Figure 8 illustrates the mean past tense recognition scores for the two language groups in LD placement. Similiar to the Regular Education placement profile, the two language groups in LD placement are parallel, and evidence a mean difference of approximately 10%. Scores, though not as high as for Regular Education placements, are above 75%.

FIGURE 8 ABOUT HERE

Figure 7
Mean Past Tense Recognition Scores for Regular Education Students by Age in Percent

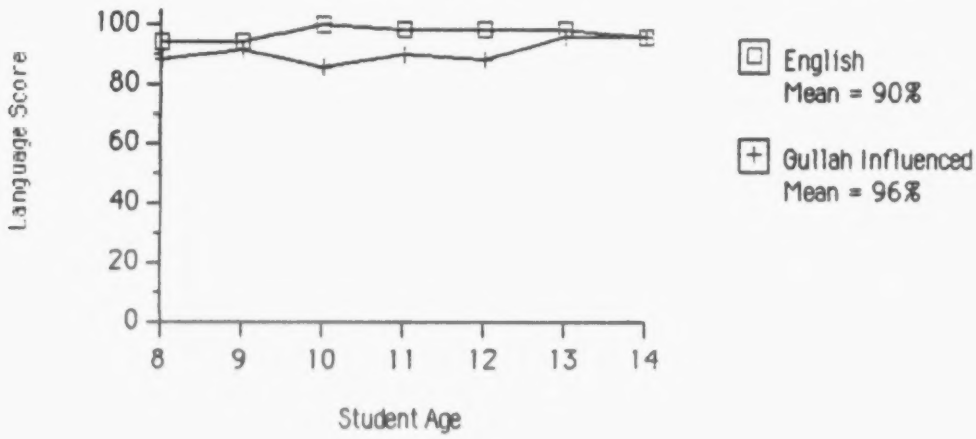


Figure 8
Mean Past Tense Recognition Scores for LD Special Education Students by Age in Percent

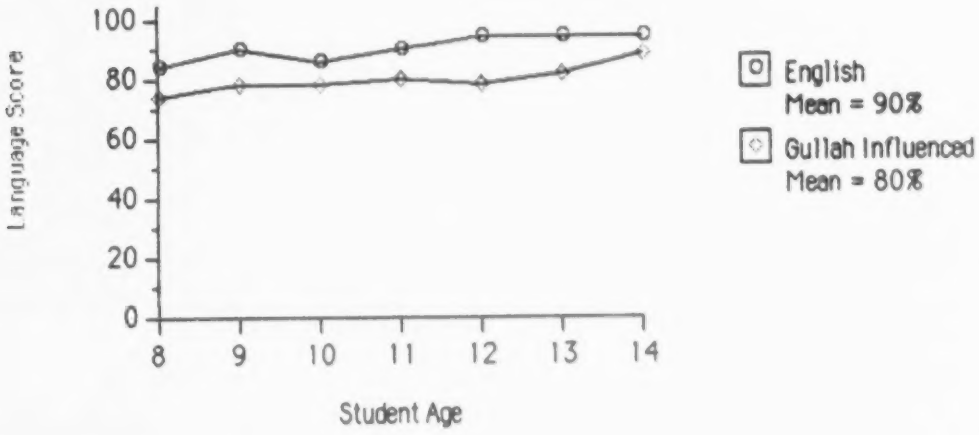


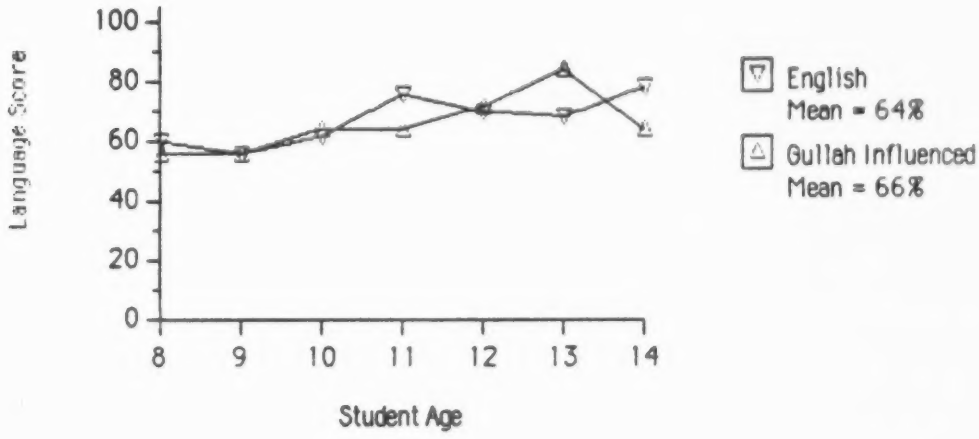
Figure 9 shows the mean past tense recognition scores for EMH placement. Both language groups maintain performance levels fairly constant over six years and demonstrate comparable skill. Performance is considerably lower in this category.

FIGURE 9 ABOUT HERE

The subtest of grammatical judgment measured the ability to recognize all of the structures of the verb system of English. The subtest for past tense recognition measured the ability to recognize the phonological differences between two verb forms. The subsequent subtests measured production of specific morphemes of English. As will be demonstrated in the following analyses, Gullah-influenced students can more successfully recognize English structure than they can produce it.

The test for production of noun plurals (Noun + s Production) consisted of fifty two nouns selected to represent the full range of English consonant sounds in final position. Stops, fricatives, affricates, glides, liquids and various consonant clusters were included. Two pictures of each item were drawn on 3 x 5 cards. The set of fifty two cards was shown to each

Figure 9
Mean Past Tense Recognition Scores for EMH Special Education Students by Age in Percent



student accompanied by the following instructions. "Tell me what is in the picture. Begin each answer with the number two. If you don't know what the picture is, I will tell you."

Analysis of the scores indicates a significiantly greater difference between the two language groups than evidenced in the first two language subtests. Table 13 shows that the Gullah-influenced group exhibited 20% less control of noun plural formation in Regular Education, 33% less control in LD and 21% less in EMH. The decline from Regular to Special Education for both language groups follows the pattern of the two test results already described.

TABLE 13 ABOUT HERE

Figure 10 shows the profile of Regular placement for the two language groups. The English group displays a high level of performance which remains fairly constant across age. The Gullah-influenced group demonstrates a slight increase with age, peaking at age 13. The mean difference is approximately 20%.

Table 13

Production of Noun Plural Scores for English and Gullah-influenced Students

Placement	Language				p-Value
	English		Gullah-influenced		
	Score	Percent	Score	Percent	
EMH	27	52	16	31	<.0001
LD	42	81	25	48	<.0001
Regular	49	94	38	74	<.0001

FIGURE 10 ABOUT HERE

Figure 11 illustrates the mean production of noun plural scores for LD placement. As in Regular placement, the English group displays a constant level of performance across age. The Gullah-influenced group performs at a significantly lower level. The mean difference is approximately 33%. This group demonstrates a slight increase in control of the plural morpheme which peaks at age 13.

FIGURE 11 ABOUT HERE

Figure 12 shows the profile for the two language groups in EMH placement. Initially the two groups perform similarly. However, while the English group steadily gains control of this structure of English, the Gullah-influenced group initially does not and then at about age 10 begins to gain at approximately the same rate, but in greatly reduced quantity. Although both groups peak at age 13, the Gullah-influenced group never reaches the degree of control which the English group demonstrates.

Figure 10
Mean Production of Noun Plural Scores for Regular Education Students by Age in Percent

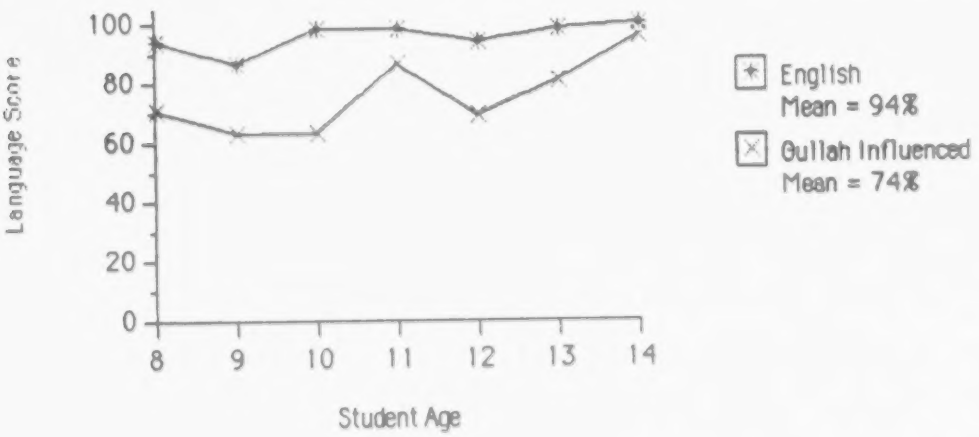
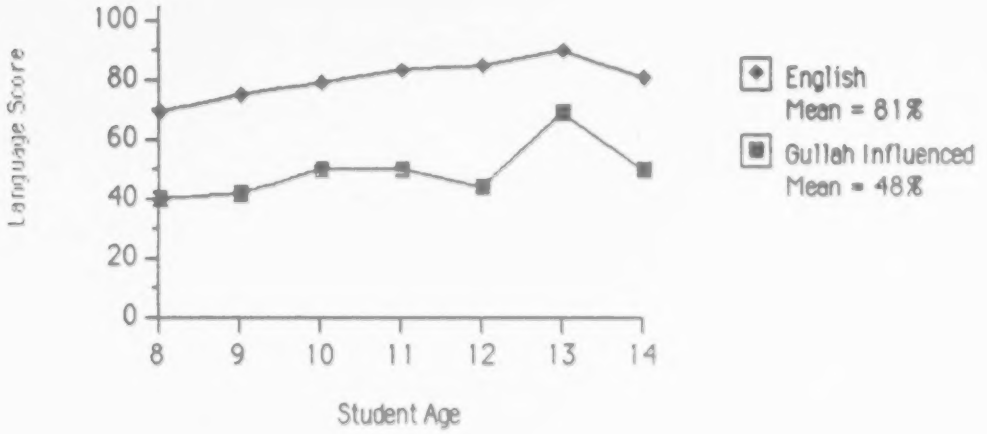


Figure 11
Mean Production of Noun Plural Scores for LD Special Education Students by Age in Percent



The mean difference between the groups is approximately 21%.

FIGURE 12 ABOUT HERE

The test for production of third person singular of present tense verbs (Verb + s Production) consisted of fifty plural sentences. The weak verbs used represented the range of English consonant sounds in final position similar to those appearing in the test for production of noun plurals. Also included were various strong verbs and several affirmative and negative sentences with "be" "do" and "have". The following directions were given to the subjects. "Change each of these sentences so that each begins with the word "He", and make any other changes that are necessary so the sentence is good English."

Comparison of scores showed a highly significant difference between the two language categories (Table 14). The Gullah-influenced group showed 28% less control of this English structure in the Regular category, 54% less in the LD category and 22% less in the EMH category. The difference from Regular Education to Special Education in both language groups was also extremely high, particularly for the Gullah-influenced group.

Figure 12
Mean Production of Noun Plural Score for EMH Special Education Students by Age in Percent

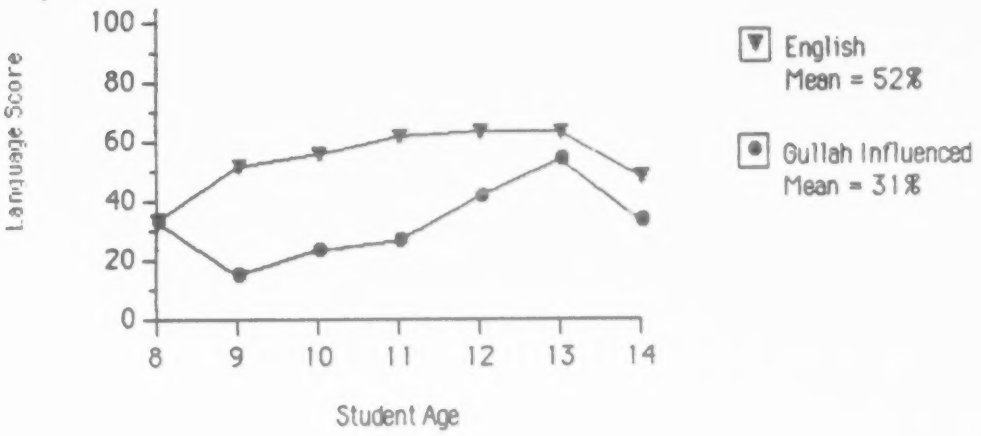


TABLE 14 ABOUT HERE

The profiles in Figure 13 reveal that the English group in Regular Education has acquired mastery of this morpheme by age 8, as one would expect. The Gullah-influenced group acquires approximately 70% accuracy in the production of this form, a level which is also reached by age 8. A rise is evident by age 14.

FIGURE 13 ABOUT HERE

Figure 14 shows the mean scores of Verb + s Production for LD placement. There is no significant increase in the degree of control across age for either language group. The English group has a slight quantitative gain by age 11, while the Gullah-influenced group maintains an accuracy of approximately 31% between the ages of 8 and 14. The mean difference between the two language groups is about 54%.

FIGURE 14 ABOUT HERE

Table 14

Production of Verb + s Scores for English and Gullah-influenced Students

	Language				
Placement	English		Gullah-influenced		p. value
	Score	Percent	Score	Percent	
EMH	20	40	9	18	<.0001
LD	43	86	16	32	<.0001
Regular	49	98	35	70	<.0001

Figure 13
Mean Production of Verb Plural Scores for Regular Education Students by Age in Percent

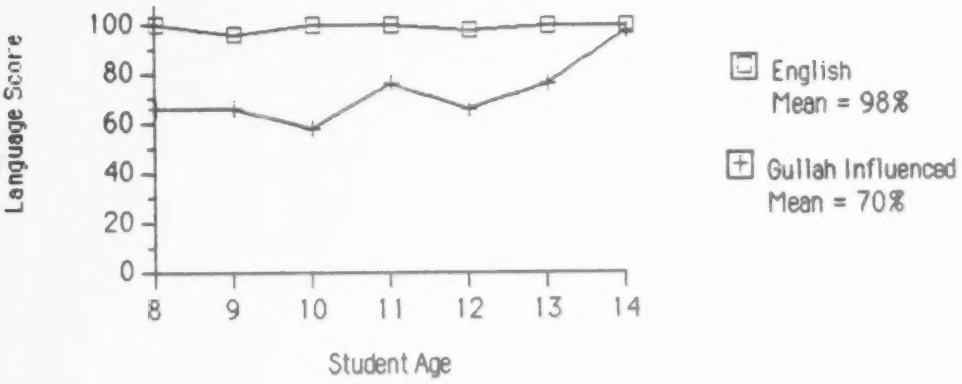


Figure 14
Mean Production of Verb Plural Scores for LD Special Education Students by Age in Percent

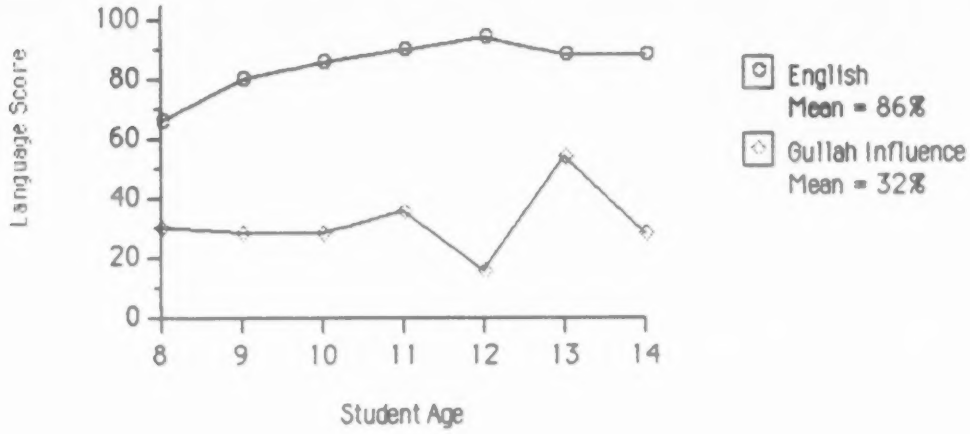
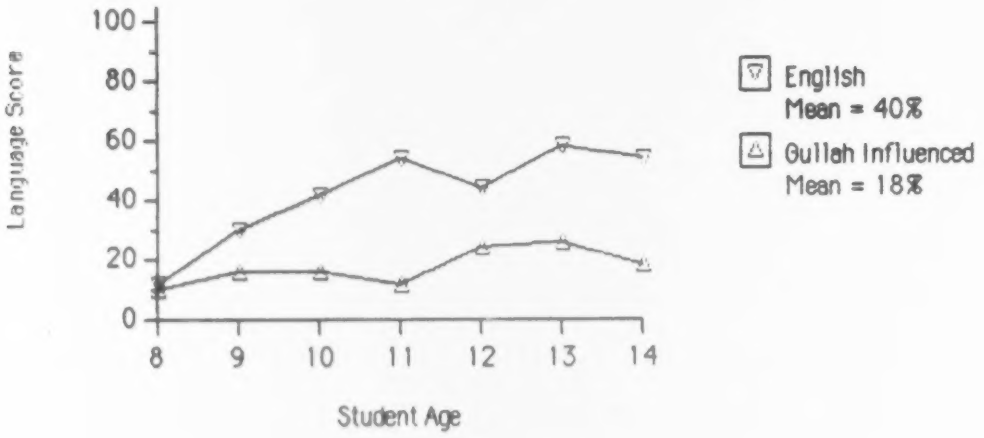


Figure 15 shows the performance of the two language groups in EMH placement. As in the profiles of the previous language subtests, both language groups demonstrate the same degree of control of this structure at age 8, albeit an extremely low percent. The English group does show an increase in quantitative terms at a steady rate, peaking at age 13. The Gullah-influened group demonstrates little quantitative gain over the six year age span.

FIGURE 15 ABOUT HERE

The test of production of past tense forms (Verb + ed Production) consisted of 50 sentences in the present tense, 25 weak verbs and 25 strong verbs. The weak verb were selected to represent the same range of consonant sounds of English in final position as those represented in the production tests for Noun + s and Verb + s. The subjects received the following instructions, "Listen to the sentences and repeat each one but start with the word 'yesterday'. Make any changes you have to so that the sentence is good English." The comparison of scores appears in Table 15. In a pattern similar to that of all the subsequent language tests, the Gullah-influenced group demonstrates less control of this structure of English than the English group. The

Figure 15
Mean Production of Verb Plural Score for EMH Special Education Students by Age in Percent



differences are 18% in Regular Education, 44% in LD and 18% in EMH. The differences from Regular Education to Special Education are also extremely high, particularly for the Gullah-influenced group.

TABLE 15 ABOUT HERE

Figure 16 shows the mean production of past tense scores in Regular Education placement. The English group has acquired this feature of Standard English by age 8. The Gullah-influenced group achieves approximately 83% accuracy by age 9 and maintains this quantitative level from then on. There is indication that some gains are made at about age 14. The mean differences between the language groups is 18%.

FIGURE 16 ABOUT HERE

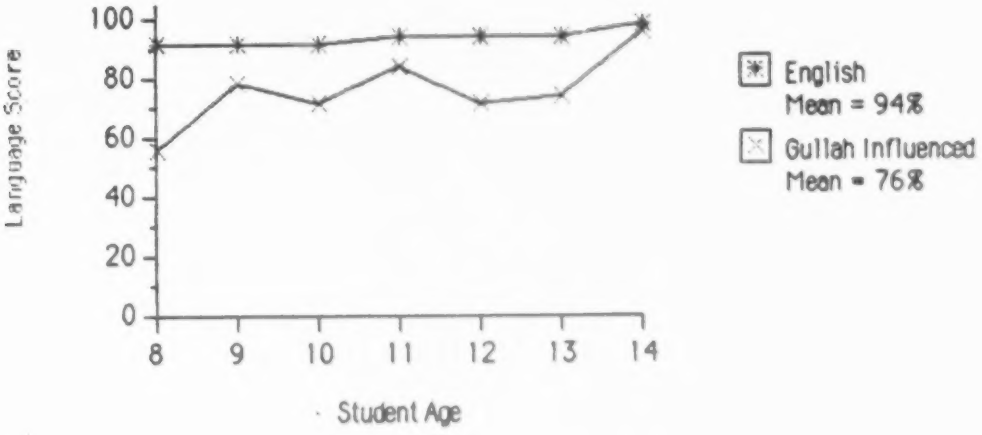
Figure 17 shows the mean production of past tense scores for LD placement. The quantitative mean difference between the two

Table 15

Production of Past Tense Forms by English and Gullah-influenced Students

	Language				
Placement	English		Gullah-influenced		p- value
	Score	Percent	Score	Percent	
EMH	17	34	8	16	< .0001
LD	39	78	17	34	< .0001
Regular	47	94	38	76	0.0003

Figure 16
Mean Production of Past Tense Scores for Regular Education Students by Age in Percent



language groups is 44%, comparable to the difference evidenced in the subtest of Noun + s. Some gains are apparent for the two groups and the profile of the rate of growth is the same for both.

FIGURE 17 ABOUT HERE

Figure 18 illustrates the mean scores of past tense production for EMH placement. The two language groups again display the same performance at age 8. The profile for the English group indicates quantitative slow growth relative to age. The Gullah-influenced group maintains a somewhat static pattern until age 11, and then demonstrates a small quantitative increase.

FIGURE 18 ABOUT HERE

Quantitative differences of statistical significance exist between the English and the Gullah-influenced language groups in all three placement categories.

Figure 17
Mean Production of Past Tense Scores for LD Special Education Students by Age in Percent

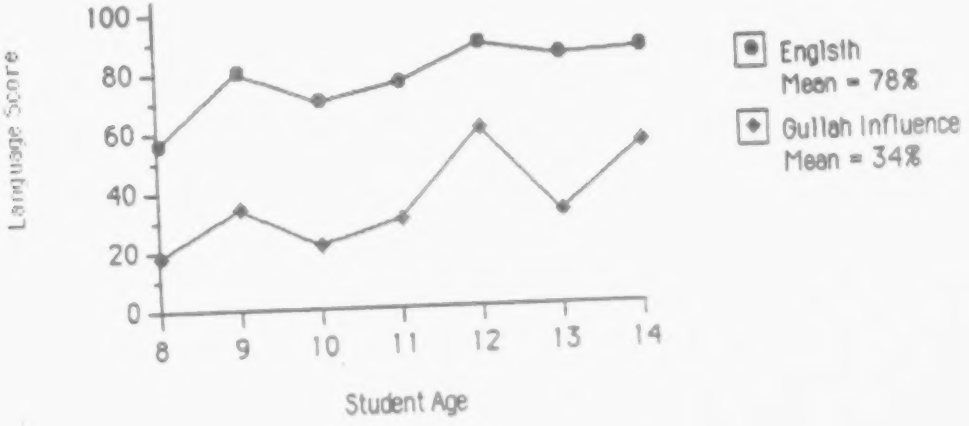
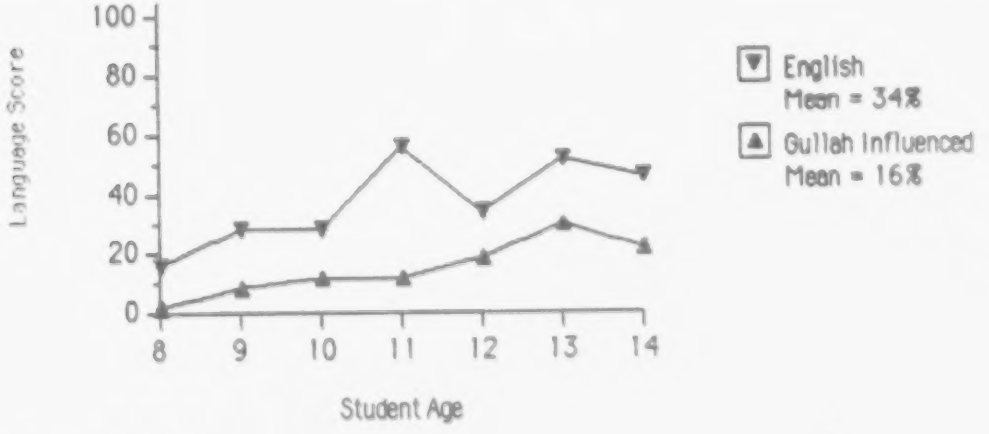


Figure 18
Mean Production of Past Tense Scores for EMH Special Education Students by Age in Percent



These differences demonstrate that Gullah-influenced students do not possess full control of the structures of Standard English.

In Regular Education classes the variation in degree of control, though significantly lower in comparison to the English group, does not seem to interfere with school tasks requiring use of Standard English. These students are able to perform successfully. Furthermore, it appears that with time, they increase their control of Standard English and may eventually match the language performance of the English language group. The Gullah-influenced groups in Special Education demonstrate significantly less control of English structure than their Regular Education counterparts. It may be argued that in addition to the existence of language variation, several other factors might be affecting the degree of control demonstrated. The potential existence of language delay and of language disorder will be addressed.

Language delay here is defined as a slower rate of acquisition of the rules used to generate sentences and their individual components according to the norms of the language in question (Kirk and Gallagher, 1983). The rate and quantity of correct responses given on a language assessment would indicate whether delay or retardation existed.

In this study a measure of language delay would be valid only for the English language group. The norms used to determine proficiency and the rate of acquisition of these language forms have been established for Standard English, and therefore cannot be applied to a population who speaks a different variety of English. In EMH placement, the increase in knowledge of English structure over a period of six years for the English language group admits the possible existence of language delay. Although performance does not exceed 50% accuracy, there is some increase until this level is reached. To offer language delay as one possible explanation for the performance profile of the Gullah-influenced language group would mean that one is applying the norms of one speech community to evaluate the performance of another, in this case, the Gullah-influenced speech group. Such a measure would indeed bias the assessment, since this group has learned a language system which does not contain the structural features of Standard English that are being assessed by this language instrument.

In the LD cateogry, both groups exhibit increase in control of the structure of English over a period of time. Again, for the English language group, language delay may be a contributing factor. The increase noted for the Gullah-influenced group

indicates that some learning of Standard English structures has taken place. However, the parallel increases of the groups do not reduce the quantitative differential between them. What is evident is that the school programs for Gullah-influenced speech students who are classified as learning disabled or mentally retarded are not having any effect upon their acquisition of Standard English.

Consideration must also be given to the possible presence of language disorder or pathology. Few educators would disagree about the necessity of defining a communication disorder within the context of a specific speech community. This means that the norms of the speech community must be identified before the particulars of communication behavior can be measured and subsequently evaluated to determine whether they interfere with successful production and transmission of a message. Unfortunately, very little research has been conducted in this country and in other cultures on the role of socio-cultural norms of culturally diverse groups in defining the rules for communication, and in describing communication disorders within that context (Taylor and Peters Johnson, 1986; Erickson and Iglesias, 1986). And only recently have linguists begun to provide empirical data on normative development of linguistic

minorities, and in particular of Black children (Reveron, 1978; Seymour and Miller-Jones, 1981; Stockman and Vaughn-Cooke, 1982; Stockman, 1986). In the absence of such data, the task of assessing speech and language behavior of children who do not speak Standard English has been extremely difficult. Only recently have speech pathologists and language arts instructors been made aware of the need to distinguish between legitimate language difference and language disorders for children whose primary dialect is not Standard English (Wolfram and Fasold, 1974; Wolfram, 1979; Terrell and Terrell (1983); Taylor and Payne, 1983). Extreme caution is urged in administering tests of language development and language ability to members of such a speech population. Test administrators are advised to determine what the test is measuring in relation to what it claims to test, what types of responses would be considered the norm for a particular speech community, and what valid conclusions can be made about suspected disorder or pathology if potential bias exists in the test instruments utilized.

In view of the currrent limitations in assessment practices, it is extremely difficult to determine which of the children who exhibit Gullah-influenced speech patterns in special education classes are suffering from true language disorders. It is

important to bear in mind that none of the Gullah-influenced speech subjects was diagnosed as needing speech or language therapy. The uniform nature of the performance of the Gullah-influenced language group on the language assessment battery minimizes the probability of existing pathology or disorders, since this entire population, including the students in regular education classes, would have to be diagnosed as suffering from the same disorders.

In light of this discussion, it is reasonable to eliminate language delay and language disorder as factors affecting the performance profiles of Gullah-influenced speech students on the assessment of knowledge of Standard English structure. One may thus conclude that a wide range of language variation exists among the Gullah-influenced speech population of Charleston County which directly affects the degree of control they possess in the production of Standard English. Students in Regular Education, in spite of incomplete control of Standard English structure, are able to perform well enough on school tasks to remain in regular education classes. The Gullah-influenced speech students in Special Education have demonstrated a significant lack of control of certain features of English . The questions that remain unanswered are whether there is a relationship between the lack of control of Standard English and

the difficulties encountered in the regular classroom, and what role this lack of control has played in the assessment process which ultimately placed these students in special education. The results of the performance on language assessment have provided some additional interesting findings. Of the five subtests administrated, one sees that the two which measure recognition of Standard English forms, discrimination between past and present tense and grammatical judgment, provided the Gullah-influenced group the highest scores. The combined scores of these two subtests for the Gullah-influenced LD and the Gullah-influenced EMH categories were 18% and 20% higher respectively than the overall language average score for the test battery. The discrepancy between the two language groups in Special Education placement was also considerably smaller, 12% in LD and 2% in EMH. The Gullah-influenced language group performed significantly worse on the three production subtests. In each placement, including Regular Education, the lowest scores were obtained for third person singular verb production (Verb + s), somewhat higher scores for past tense production (Verb + ed) and then slightly higher for noun plural production (Noun + s) Again the trend was the same in each placement category. The most significant discrepancy between the two groups for the production subsets, a difference of 43%, occurred in LD placement.

The difference between recognition and production abilities as evidenced by the Gullah-influenced language group has been reported for other groups of nonstandard speakers as well. As early as 1966, Craig pointed out that speakers of Jamaican Creole knew a number of Standard English patterns passively, but were unable to produce them in formal contexts or spontaneously in informal speech. Their level of recognition far exceeded their level of production. The relationship between receptive and productive repertoires of Standard English and the discrepancies existing between the two has also been addressed by Shuy (1971); Cullinan, Jaggar and Strickland (1974); and Ervin-Tripp (1972) among others, as they attempted to describe differences between speakers of a second language and speakers of a second dialect. Craig (1967, 1968) has elaborated upon the consequences for language teaching when the learner is able to recognize Standard English far out of proportion to his or her ability to produce it. Such a learner operates under the illusion that he or she fully knows the language and is performing satisfactorily in Standard English. Although this portion of the study does not attempt to suggest pedagogical alternatives for students whose control of English is affected by Gullah-influenced speech, it is important to note that this study provides data showing that these students are not able to produce consistently certain features of Standard English

structure, although they may recognize them as features of Standard English. This phenomenon also appears in other nonstandard speech communities and has been addressed directly as an educational issue in post-creole societies (Craig, 1978, 1983).

Another noteworthy observation which ultimately points to some pedogogical modifications is the difference in the quantity of acquisition exhibited by the two language groups. The English group demonstrates either a high degree of control or mastery of Standard English structure by age 8 as in Regular classes, or will show significant gains over time. In LD placement, mean performance at age 8 is 65%, whereas the overall mean for this language group is 80%. Thus, a 15% increase in performance occurs with age. In the EMH category the mean at age 8 is 35% and the overall mean is 52%, thus pointing to a 17% gain. For the Gullah-influenced speech group in LD placement, performance at age 8 is approximately 45% and the overall score is 53%, which shows a gain of 8%. In EMH placement, performance starts out at approximately 34%, and an overall mean of 40% is reached. This indicates a growth of 6%. The trends exhibited here clearly show that the students in special Education Classes who exhibit Gullah-influenced speech patterns do not learn Standard English. Thus, an area of critical importance for this population has not been appropriately addressed.

Comparison Of WISC-R And Language Data

In order to examine the relationship between language and the assessment of intelligence, correlations between Full Scale IQ scores and the mean Language Assessment scores were calculated for the two language groups. As seen in Table 16, there is a highly significant relationship between the Full Scale IQ score and the Language score for both language groups.

INSERT TABLE 16 ABOUT HERE

This positive correlation supports the contention that a significant relationship exists between control of Standard English structure and performance on the WISC-R. Students who demonstrate high measure of control on Standard English also score well on a standard test of intelligence. Students who demonstrate low control of Standard English perform poorly on the test of intelligence.

Once it was established that a significant relationship existed,

TABLE 16

Correlations Between FSIQ and Language Assessment By Language Groups

	Language	
	ENGLISH	GULLAH-INFLUENCED
r	.70	.72

the researchers proceeded to investigate whether linguistic differences was a variable that affected performance on the WISC-R.

First, they examined the average increase of FSIQ and language assessment score from EMH to Regular placement for the English group. This group by definition has not been influenced by Gullah speech patterns. Their scores were used to standardize the relationship between knowledge of Standard English structure and FSIQ for the subjects in this sample. The mean scores for placement and language groups are shown in Table 17.

TABLE 17 ABOUT HERE

A comparison of the average student scores in the English EMH and English Regular Education categories showed that there is an average increase in FSIQ of 45 points (107-62), which represents an increase of 73% over the average EMH Full Scale IQ (45/62 x 100%). Simultaneously, there is an average increase of 122 points in language assessment scores which represents a 78% increase over EMH average language assessment scores (122/156 x

Table 17

Mean WISC-R FSIQ Scores and Language Assessment Scores by Placement and Language Groups

	Language			
	English		Gullah-influenced	
Placement	FSIQ	Language	FSIQ	Language
EMH	62	156	62	121
LD	90	243	82	160
Regular	107	278	95	230

100%). Thus, a 73% increase in FSIQ is associated with a 78% increase in control of Standard English structure for the English language group, as they move from EMH to Regular Education placement.

On the average, an increase of one percentage point in language assessment is associated with a 0.94% increase in FSIQ for the English group.

Using the same calculations for the Gullah-influenced group, an increase of 53% in average FSIQ scores is associated with a 90% increase in control of Standard English from EMH to Regular Education placement.

On the average, an increase of one percentage point in language assessment is associated with a 0.59% increase in FSIQ scores for the Gullah-influenced language group. If we use the standardized percentages of the English group, we would expect that the 90% increase in the knowledge of Standard English would produce an 85% increase in FSIQ scores (90% x 0.94), but the true increase is only 53%. Thus, it is clear that some other variable is depressing the FSIQ scores of the students in the Gullah-influenced language group. Table 18 presents the

present increase for the two groups. The ratio for the English group is nearly twice the ratio for the Gullah-influenced group from EMH to Regular placement.

TABLE 18 ABOUT HERE

It is not correct to view EMH, LD and Regular Education placement as a linear progression with equal spacing between categories. EMH and LD placements are two very different programs within Special Education. Nonetheless, the pattern is repeated when examining the average increase of FSIQ and language assessment scores from LD to Regular Education placement.

On the average, an increase of one percentage point in language assessment is associated with the 1.4% increase in FSIQ score for the English language group from LD to Regular Eduation placement. For the Gullah-influenced language group in the same circumstances, an increase of one percentage point in language assessment is associated with a 0.4% increase in FSIQ scores. If we used the English language group ratio for the Gullah-influenced group, we would expect that the 44% increase in the knowledge of English structure for this language group from LD to Regular Education to be associated with a 62% increase in FSIQ (44% x 1.4%). In fact, only a 16% increase occurred. Again

TABLE 18

Percent Increase In Average Scores For Students From EMH to Regular Education Placements

	Language	
Assessment	English	Gullah-influenced
FSIQ	73%	53%
Language	78%	90%
Ratio:	73/78=0.94	53/90=0.59

it is evident that some variable is depressing the scores of the Gullah-influenced group which does not operate among the subjects in the English language group (Table 19). The ratio for the English group is 3.5 times the ratio for the Gullah-influenced group from LD to Regular placement.

TABLE 19 ABOUT HERE

It is postulated by the investigators that a major variable that is depressing the FSIQ scores of the Gullah-influenced group is the degree of control of Standard English. It has been demonstrated that a significantly high correlation exists between language and FSIQ. Students who demonstrate a high measure of control of Standard English also score well on the average on a standard test of intelligence, while students who demonstrate low control of Standard English perform poorly on the average on the test of intelligence. It has also been shown that Gullah-influenced students in all three placement categories do not possess full control of Standard English. Furthermore, it has been demonstrated that the actual ratio of percent increase of average FSIQ score to Language Assessment score for the

Table 19

Percent Increase In Average Scores for Students From LD To Regular Education Placement

	Language	
	English	Gullah-influenced
FSIQ	19%	16%
Language	14%	44%
RATIO:	19/14 = 1.4	16/44=0.4

English group is nearly twice the ratio existing for the Gullah-influenced group when comparing EMH to Regular placement and 3.5 times the ratio existing for the Gullah-influenced group when comparing LD to Regular placement.

DISCUSSION

Results of this investigation have indicated that the degree of control of Standard English affects a student's performance on a measure of intelligence, in this case the WISC-R. Thus, the extent to which intelligence test scores are a true measure of an individual's abilities is questionable for students who do not exhibit a control of Standard English. Before discussing the educational implications of possible misdiagnosis and placement, an examination of the referral process in place in Charleston County is necessary. The following is a review of that process.

Students who ultimately enter the special education assessment process first exhibit learning problems in the classroom. In Charleston County, prior to referral, the classroom teacher is expected to exhaust all possible intervention methods. Such methods might include parent conferences, extra work, and tutorial assistance. If intervention methods do not result in improved performance, the student is referred for vision, hearing

and/or speech testing in order to rule out medical reasons for the poor performance. If further evaluation is deemed necessary, the resource room teacher becomes involved; this individual is responsible for administering various achievement tests.

The screening data then are turned over to a Child Study Team. This group which is comprised of a Local Education Agency representative, a special education teacher, the parent, the child (if appropriate) and any other individual involved in new placements reviews the screening data. If there is a suspicion of an EMH diagnosis, additional tests are administered. These tests include a measure of intellectual functioning, a measure of adaptive behavior and two supplemental tests, such as the Peabody Picture Vocabulary Test and the Raven Progressive Matrices. If a student exhibits signs of a learning disability, he or she receives additional testing to include a measure of intelligence and usually an achievement test not administrated in the screening process. These tests are administered by the school psychologist. The administration of various assessment instruments and the establishment of Child Study Teams are standard procedures throughout Charleston County School District. One may also assume that the assessment tests, especially the WISC-R, are administrated in a consistent manner.

Every test used is standardized and the procedure for administering and scoring are detailed in the test manuals. Inconsistency or inappropriate administration and scoring would render invalid all special education placements. Conceivably, some inconsistencies might occasionally occur, but it is highly unlikely that this practice is widespread or frequent.

The initial step into the special education process of assessment is the referral by the regular classroom teacher. It must be assumed that prior to this referral all students in Charleston County Schools are exposed to similar curricular materials and are afforded the same learning opportunities. Given this premise, we must assume that all students referred to the special education system at a given grade level enter the testing process with the same general educational experiences. The only variable that should be a factor in differing assessment results is the type and degree of severity of the retardation or learning disability. If we assume that the assessment procedure, the administration of assessment devices, and the prior educational experiences are similar for all students entering the special education referral system, and that the degree and type of disability should be the only factor affecting WISC-R scores, then the relationship between percent increase in language

assessment and WISC-R should be the same for both language groups. This is not the case. It is evident that some other factor is suppressing the FSIQ scores of the Gullah influenced students. The results of this investigation strongly support the contention that language difference is a variable that impacts upon the performance of the Gullah-influenced students on the WISC-R.

It can be argued that failure to use the Standard English morpheme for plurality or third person singular, or the non-production of the past tense forms does not in itself cause poor academic performance or low scores on ability tests. However, a low performance profile on a test of multiple features of Standard English is a strong indication of incomplete control of Standard English, and a clear sign that other areas of language usage may be affected as well. To what degree other systems within the grammar of Standard English are influenced and how school tasks are subsequently affected requires much more extensive investigation.

However, several issues can be addressed to support the contention that other areas of language performance are likely to be affected, which in turn may affect performance in school tasks: the complexity of Gullah, the diagnostic difficulties in

identifying problem areas for speakers in a post-creole society, and some relevant research on school task performance of creole speakers.

Complexity of Gullah

Jones Jackson (1983) takes issue with the limited scope that the research in Black English has embraced to date. She comments that the features characteristic of Black speech of urban inner city centers described by Labov, (1972) Wolfrom (1969) and Fasold (1972) among others, are inadequate descriptions of speech varieties of other Black communities, including the Creole, Gullah, or "Contemporary Gullah", a term she uses to describe the current range of variation apparent in the speech of Blacks living along coastal areas of South Carolina and Georgia. Some of the features associated with Black English are shared by Contemporary Gullah, such as those assessed in this study. However, a number of structural patterns are distinctive to this English Creole, thereby rendering it far more complex than Black English, and significantly more distant from Standard English.

The most extensive study of Gullah phonology, syntax and lexicon was conducted by Lorenzo Turner in 1949. He documented the multiple West African language sources that contributed to the pidgin-creole stages in the development of Gullah. Cunningham

(1970) made an extensive study of Gullah structure using a generative model of grammar. Nichols (1976) analyzed the Gullah variants used in the pronominal and prepositional categories and indicated which forms most rapidly decreolized and which have been most resistant to change. Jones Jackson (1978) investigated tense markings in the verb system and the pronominal system of Contemporary Gullah speech. She found that the uninflected verb and preverbal makers are still an integral part of tense markings. She also found that many speakers continue to use a single pronoun that is gender free in the third person which also serves a range of functions in a number of syntactic positions. The work of these researchers has demonstrated that the language patterns of this contemporary post-creole community exhibit a wide range of variation along a continuum, and that the variation differ significantly in kind from the features commonly associated with Black English. Gullah influence on the use of Standard English continues to be a significant factor among speakers.

Diagnostic Difficulties

In a foreign language classroom, the differences between the native and target language are evident and the two discrete language systems are contrasted and manipulated accordingly.

Students are aware of the fact that they are learning a second language. The process of gaining control of a new system is slow, partly because of the difficulties inherent in the language acquisition process and partly because of interference, or negative influence, of the native language in the acquisition of the structures of the target language. Speakers in a post-creole continuum, while operating within a general framework of English, are essentially in what has been called a quasi-foreign language situation. When students produce creole or nonstandard English forms which are clearly recognized as not Standard English, they are corrected by their teachers for committing "an error" in English, or using "bad grammar", often without a clear appreciation of what was regarded as wrong and why it was wrong. The prevalence of other creole or nonstandard constructions which are more subtle may create problems in Standard English usage that are more elusive. When difficulties occur that affect performance they are rarely perceived by students or teachers to be caused by linguistic interference or incomplete control of a second language system. Craig (1978) discusses the issue that the competence of a learner in a post-creole situation extends over a portion of the language continuum which extends from deep creole to Standard English, and cannot be limited in its description to a static system. Such partial competence

signifies that the repertoire of Standard English for a Creole-influenced learner is stratified. Earlier, Craig (1966,1971) pointed out that in such a situation the knowledge of English can be divided thusly: 1) structures common to both Creole and Standard English, and therefore, correctly produced, 2) structure known but produced only in formal or prestiage situations, 3) structures recognized and comprehended, but not produced, and 4) Structures unknown to the learner. In this investigation, the demonstrated lack of control of the features tested is likely caused by situations 3 or 4, or a combination of the two. By logical extension, such a condition, strata 3 and 4, can affect a number of areas within the range of Standard English usage. Without a clear understanding of the lingustic complexities existing within a post-creole speech population, and without adequate assessment procedures, it is impossible to rule out this variable, language difference, as a potential causal factor in poor academic achievement. Craig (1978,) suggests further that students who do not control the morpho-syntax of standard language also lack control of the style of communication that accompanies it. He further postulates that differences in communication formats can present significant barriers to adequate reception and processing of information.

Relevent Research on School Task Performance

It seems appropriate to mention the work of several other researchers which addresses language related school task problems of creole speakers. Edwards (1976) determined that a significant difference existed in performance on tests of reading and comprehension between a group of 12 year old British born children and a similar group of West Indian born children living in Britain. The two groups were matched for reading ability. This study demonstrated that the greater the linguistic complexity of the reading passages, the greater the problems of comprehension for the West Indian Creole group. Edwards (1979) also found that children of West Indian parents born in Britain exhibited creole syntax, morphology and phonology in their speech patterns, and this creole influence negatively affected their reading performance. Most noteworthy was her research finding that a highly significant correlation existed between the degree of creole interference on British English usage and performance on reading comprehension tasks. This study provides yet another piece of evidence that test performance is not simply a function of ability, but is also affected by other variables, language being a proven one. Benmaman (1976) designed a reading comprehension test in two versions, Gullah and Standard English, which she administered to 120 fourth and fifth grade Black

students in several urban and sea island schools in Charleston County. The results showed that students who responded to questions and answer options written in Gullah scored significantly higher than the students who received the questions and answer options in Standard English, even though the texts for the two groups were in Standard English. Since questions provide fewer contextual clues and less redundancy than do a series of statements in connected discourse, the grammatical construction of a question gains importance as a vehicle of meaning bearing and provides the major clues for intelligibility. In this study, questions phrased in Gullah provided a vehicle for more accurate responses.

The acquisition of reading skills is undeniably a crucial task to be learned in school. The research just cited supports the contention that students who demonstrate creole influence in their speech do not perform as well on tasks of reading comprehension as their Standard English speaking counterparts, and perform better if questions are constructed in creole. Sustained low performance frequently targets such students for special education assessment in this country. The tests administered include a measure of intelligence and several measures of achievement, all of which rely heavily on language.

Students whose speech patterns are creole-influenced and who are poor readers will perform poorly on these tests as well. The result, ultimately, is placement in special education classes. It appears, then, that language is a variable that significantly affects the cycle of low class performance and low test scores which ends in special education placement. This study has demonstrated that a causal correlation exists between the degree of control of Standard English and scores on a standardized measure of ability. It is quite possible, in light of the results of this study, that a causal correlation exists as well between the degree of control of Standard English structure and success in language related school tasks.

Language plays an important role in the entire educational process. The languge of the classroom is Standard English. If a student comes from a language background other than Standard English, he or she is at a distinct disadvantage. As previously mentioned, many teachers are not familiar with the nature of language differences and their effect on school task related performance. Consequently, they may attribute the persistent use of non-standard English to mental retardation or to a learning disability (Shuy and Fasold, 1973). Those students who have low control of Standard English are most likely the ones who perform poorly in classroom activities conducted in Standard English.

While bilingual education officially recognizes that students with a primary language other than English, usually Spanish, require special programs of language instruction for efficient learning to occur, no such recognition exists for students whose primary language is not Standard English but another variety of English. Educational systems in post-creole language communities such as Charleston have not yet recognized the need for special language instruction. PL 94-142 in addressing the issue of nondiscriminatory assessment mandates that a child suspected of a disability must be tested in the primary language. However, Black students in Charleston County who are referred for special education assessment are tested and evaluated with instruments designed for students who are speakers of Standard English.

If we accept the reality that Gullah is a language and that most Black students born in Charleston County exhibit Gullah influence in their speech patterns, then those Black students referred for testing must be assessed in a manner which does not discriminate against their primary speech patterns. The degree of control of Standard English that such students possess must be determined, and their performance on achievement and ability tests must be interpreted accordingly before any placement decisions are made.

If we accept the fact that language variation is a key variable forcing students out of the regular classroom and into the special education referral system and that language variation limits a student's chances for scoring well on assessment instruments designed for speakers of Standard English and normed on such a population, then it is encumbent upon us, as educators, to reevaluate the current diagnosis and placement procedures. All teachers, and particularly those in communities where Standard English is not spoken, must be trained to deal with language differences and recognize that language variation is a factor that affects classroom performance and test scores. Rather than refer such students for special education assessment, which usually results in a diganosis of EMH or LD, classes designed to teach skills in Standard English usage should be available to all students who need such instruction.

REFERENCES

Alley, G. & Foster, C. (1978). Nondiscriminatory testing of minority and exceptional children. Focus on Exceptional Children, 9, 1-14.

Anastasi, A. & Cordova, F. A. (1953). Some effects of bilingualism upon the intelligence test performance of Puerto Rican children in New York. Journal of Educational Psychology, 44, 1-19.

Arthur, G. (1950). The Arthur Adaptation of the Leiter International Performance Scale. Chicago: Stoelting.

Beberfall, L. (1958). Some linguistics problems of the Spanish-speaking people of Texas. Modern Language Journal, 42, 87-90.

Baratz, J. C. (n.d.). Language abilities of Black Americans: Review of research,
1966-1970. Washington: Education study Center.

Baratz, J. C. (1969). Language and cognitive assessment of Negro children: assumptions and research needs. American Speech and Hearing Association, 11, 87-91.

Benmaman, V. (1975). An investigation of reading comprehension ability of Black fourth and fifth grade. Students who are reading below grade level utilizing materials written in Gullah and Standard English. Unpublished doctoral dissertation. University of South Carolina, Columbia.

Bloomfield, L. (1933) Language. New York: Holt and Company.

Cattell, R. B. & Cattell, A.K.S. (1960, 1963). IPAT Culture Fair Intelligence Test: Scales 2 and 3. Champaign, Ill.: Institute for Personality and Ability Testing.

Charleston County Ten Day Report (1984). Charleston County School District, Charleston, S.C.

Chavez, S. J. (1956). Preserve their language heritage. Childhood Education, 33, 165, 185.

Craig, D. R. (1983a). Teaching Standard English to nonstandard speakers: Some methodological issues. Journal of Negro Education, 52 (1) 65-74.

Craig, D. R. (1983b). Language Education in a post-creole society. In B. Spolsky S. R. Cooper (Eds.), Case Studies in bilingual education (pp. 404-425). Rowley, Ma: Newberry House.

Craig, D. R. (1978, September). The Sociology of language learning and teaching in a Creole situation. Caribbean, Journal of Education, 101-116.

Craig, D. R. (1971). Education and creole English in the West Indies: Some socio-lingustic factors. In. D. Hymes (Ed.) Pidginzation and creolization of Languages. Cambridge: Cambridge University Press.

Craig, D. R. (1967). Some early results of learning a dialect. Language Learning, 17, 3-4.

Craig, D. R. (1966). Teaching English to Jamaican Creole speakers: A model of a multi-dialect situation. Language Learning, 16, 1-2.

Cullinan, B. E., Jaggar, A. and Strickland, D. (1974) Language expansion for Black children in the primary grades: A research report. Young Children, 29, 98-112.

Cunningham, I. (1970) A syntactic analysis of Sea Island creole (Gullah). Unpublished doctoral dissertation. Ann Arbor: University of Michigan.

DeCamp, D. (1971). Towards a generative analysis of a post-creole continuum. In D. Hymes (Ed.), Pidginization and creolization (pp. 349-370). Cambridge: Cambridge University Press.

Edwards, V. K. (1978) Dialect interference in West Indian children. Language and Speech. 21 (1) 76-86.

Edwards V. K. (1976). Effects of dialect in the comprehension of West Indian children. Educational Research, 18, 83-95.

Erikson, J. & Iglesias, A. (1986) Assessment of communication disorders in non-English proficient children. In O. L. Taylor (Ed.). Nature of communication disorders in culturally and lingusitically diverse populations. (pp. 181-218). San Diego: College-Hill Press.

Erwin-Tripp, S. M. (1972) Children's sociolingustic competence and dialect diversity. Early Childhood Education: 71st Yearbook of the NSSE. Chicago: University of Chicago press, 123-155.

Fasold, R. W. (1972). Tense markings in Black English: A lingustic and social analyses. Arlington, VA: Center for Applied Lingustics.

Guy, D. P. (1977). Issues in the unbiased assessment of intelligence. School Psychology Digest, 6 (3), 14-23.

Hall, R. Jr. (1966). Pidgin and Creole language. Ithaca: Cornell University Press.

Hiskey, M. S. (1941, 1955). Hiskey Nebraska Test of Learning Aptitude (revised). Lincoln: College View Printers.

Holland, W. R. (1960). Language barrier as an educational problem of Spanish-speaking children. Exceptional children, 23, 42-50.

Hutchinson, J. O. (1972). Reading tests and nonstandard language: Metropolitan Achievement Test. Reading Teacher, 15, 403-37.

Jenson, A. R. (1975). The price of inequality. Oxford Review of Education, 1, 59-71.

Jones, Jackson, P. (1984). On decreolization and language death in Gullah. Language and Society, 13 (3), 351-362.

Jones-Jackson, P. (1983). Contemporary Gullah Speech: Some persistent linguistic features. Journal of Black Studies, 13. 289-303.

Jones-Jackson, P. (1978). The status of Gullah: An investigation of convergent processes. Unpublished doctoral dissertation. University of Michigan, Ann Arbor.

Kirk S. & Gallagher, J. (1983) Educating exceptional children (4th ed.). Boston: Houghton Mufflin Company.

Labov, W. (1972). Language in the inner city: Studies in the Black English Vernacular. Philadelphia: University of Pennsylvania Press.

McLoughlin, J. A. & Lewis, R. B. (1981). Assessing Special Students. Columbus: Charles E. Merrill Publishing Company.

Mercer, J. R. & Lewis, J. F. (1977). System of Multicultural Pluralistic Assessment. New York: Psychological Corporation.

Mercer, J. R. (1974) (1974). A Policy Statement on Assessment Procedures and Rights of Children. Harvard Educational Review, 44, 125-141.

Mercer, J. R. (1973). Labeling the Mentally Retarded. Berkeley: University of California Press.

Mercer, J. R. (1974). A Policy Statement on Assessment Procedures and Rights of Children. Harvard Educational Review, 44, 125-141.

Nichols, P. (1976). Linguistic change in Gullah: Sex, age and mobility. Unpublished doctoral dissertation. Stanford University, Palo Alto.

Oakland, T. & Matusek, P. (1977). Using tests in nondiscriminatory assessment. In T. Oakland (Ed.), Psychological and educational assessment of minority children. New York: Brunner/Mazel.

Perales A. M. (1965). The audio-lingual approach and the Spanish-speaking student. Hispania, 48, 99-102.

Public Law 94-142. (1975). The Education for All Handicapped Children Act of 1975.

Quay, L. C. (1971). Language dialect, reinforcement, and the intelligence-test performance of Negro childen. Child Development, 42, 5-15.

Reveron, W. W. (1978). The acquisition of four Black English morphologial rules by Black preschool children. Unpublished doctoral dissertation, Ohio State University, Columbus.

Roberts, E. (n.d.). An evaluation of standardized tests as tools for measuring language development. Language Research Report 1, Cambridge, Ma.

Sattler, J. M. (1974). Assessment of children's intelligence. Philadelphia: W. B. Saunders.

Seymour, H. & Miller-Jones, D. (1981). Language and cognitive assessment of Black children. In N. Lass (Ed.), Speech and language advances in basic research and practice (pp. 203-263). New York: Academic Press.

Shuy, R. W. & Fasold, R. W. 1973 (Eds.). Language attitudes: Current trends and prospects. Washington, DC: Georgetown University Press.

Shuy, R. W. (1971). Social dialects: teaching vs. learning. The Florida FL Reporter 9 23-33.

Stewart, W. A. (1973). The decreolization of Gullah: A case study of linguistic socialization. National Science Foundation, Initial proposal.

Stockman, I. & Vaughn-Cooke, F. (1982). A re-evaluation of research on the language of Black children: The need for a new framework. Journal of Education, 164, 157-172.

Stockman, I. J. (1986). Language acquisition in culturally diverse populations: The Black child as a case study. In O. C. Taylor (Ed.), Nature of communication disorders in culturally and lingustically diverse populations (pp. 117-155). San Diego: College-Hill Press.

Taylor, O. L. & Payne, K. T. (1983). Culturally valid testing: A proactive approach. Topics in Language Disorders, 3(3) 8-20.

Taylor , O. L. (1982). Language Differences. In E Shames & E. Wiig (Eds.), Human communication disorders: An introduction (pp. 45-64). Columbus: Merrill Publishers.

Taylor, O. L. & Peters-Johnson, C. (1986). Speech language and hearing disorders in Black populations. In O. L. Taylor (Ed.), Nature of communication disorders in culturally and linguistically diverse populations (pp. 157-180). San Diego: College-Hill Press.

Terrell, S. L. & Terrell, F. (1983). Distinguishing linguistic differences from disorders: the past, present and future of nonbiased assessment. Topics in Language Disorders, 3(3), 1-17.

Turner, L. D. (1969) Africanisms in the Gullah dialect. New York: Arno Press.

Wechsler, D. (1974). Wechsler Intelligence Scale for Children - Revised. New York: Psychological Corporation.

Williams, R. L. (1981). The BITCH-100: A Culture-Specific Test. Paper presented at the meeting of the American Psychological Association, Honolulu, Hawaii.

Wolfrom, W. & Fasold, R. W. (1974). The study of social dialects in American English. Englewood Cliffs, N. J.: Prentice-Hall.

Wolfrom, W. (1979) Speech pathology and dialect differences. Dialects and Education Equity. Arlington, Va: Center for Applied Linguistics.

Wolfrom, W. (1969). A sociolinguistic description of Detroit Negro speech. Arlington, VA: Center for Applied Linguistics.

Wood, P. (1974). Black Majority. New York: Alfred Knoff.

APPENDIX A

Percentile Scores for All Language Assessment Subtests by Age, Language and Placement

EMH

AGE	Overall LA* N = 302		GJ* N = 100		Verb + ed* N = 50		Verb + s* N = 50		Past Tense Recognition* N = 50		Noun + s* N = 52	
	G	E	G	E	G	E	G	E	G	E	G	E
8	34	37	51	51	2	16	10	12	56	60	33	33
9	33	46	51	55	8	28	16	30	56	56	15	52
10	37	50	51	56	12	28	16	42	64	62	23	56
11	36	64	51	67	12	56	12	54	64	76	27	62
12	44	54	56	58	18	34	24	44	72	70	42	63
13	55	62	62	67	30	52	26	58	84	68	54	63
14	42	59	57	64	22	46	18	54	64	78	33	48
Overall	40	52	54	59	16	34	18	40	66	64	32	52

LD

AGE	Overall LA* N = 302		GJ* N = 100		Verb + ed* N = 50		Verb + s* N = 50		Past Tense Recognition* N = 50		Noun + s* N = 52	
	G	E	G	E	G	E	G	E	G	E	G	E
8	46	69	56	67	18	56	30	66	74	84	40	69
9	50	78	56	72	34	80	28	80	78	90	42	75
10	49	80	59	79	22	70	28	86	78	86	50	79
11	54	79	64	69	30	76	36	90	80	90	50	83
12	57	87	72	81	60	88	16	94	78	94	44	85
13	105	86	72	81	32	84	54	88	82	94	69	90
14	60	85	72	79	54	86	28	88	88	94	50	81
Overall	53	81	63	76	34	78	32	86	80	90	48	81

REGULAR

AGE	Overall LA* N = 302		GJ* N = 100		Verb + ed* N = 50		Verb + s* N = 50		Past Tense Recognition* N = 50		Noun + s* N = 52	
	G	E	G	E	G	E	G	E	G	E	G	E
8	71	93	72	89	56	92	66	100	88	94	71	94
9	75	90	75	86	78	92	66	96	92	94	63	87
10	70	93	73	83	72	92	58	100	86	100	63	98
11	83	92	79	82	84	94	76	100	92	98	87	98
12	74	93	74	85	72	94	66	98	88	98	69	94
13	81	94	79	86	74	94	76	100	96	98	81	98
14	92	96	84	88	96	98	98	100	96	96	96	100

*LA = Language Assessment

*GJ = Grammatical Judgement

*Verb + ed = Production of Past tense forms

*Verb + s = Production of third person singular present tense forms

*Past Tense Recognition - Discrimination between past and present tense forms

*Noun + s = Production of noun plurals

APPENDIX B

GRAMMATICAL JUDGMENT

Data G J Group _____ ID _____ Age _____ Sex ____

Listen to the following sentences. Say "Yes" if you think the sentence is good English and say "No" if you think the sentence is not good English

		JUDGMENT IS		
		ENGLISH	NOT ENGLISH	
1	SHE HAS WRITTEN TO ME---------->	_____	_____	1 ____
2	THEY IS WALKING ---------->	_____	_____	2*____
3	THE CAR WAS BEING STOLEN---------->	_____	_____	3 ____
4	I AM GOING HOME---------->	_____	_____	4 ____
5	THEY IS FISHING---------->	_____	_____	5*____
6	I AM TAKEN THERE---------->	_____	_____	6 ____
7	WE WERE GLAD ---------->	_____	_____	7 ____
8	WE DOES BE GOOD WORKERS---------->	_____	_____	8*____
9	HE WORKS EVERYDAY---------->	_____	_____	9 ____
10	HE HAVE BEEN GLAD---------->	_____	_____	10*____
11	THEY WERE DRIVEN HOME---------->	_____	_____	11 ____
12	HE HAD WENT TO TOWN---------->	_____	_____	12*____
13	SHE HAS BEEN BEING GIVEN THE MONEY ---->	_____	_____	13 ____
14	I HAS $5---------->	_____	_____	14*____
15	WE DOES BE AT HOME---------->	_____	_____	15*____
16	YESTERDAY THEY DRIVING IT---------->	_____	_____	16*____
17	HE HAVE $5---------->	_____	_____	17*____
18	SHE HAS BEEN SHOPPING---------->	_____	_____	18 ____
19	I AM A TEACHER---------->	_____	_____	19 ____
20	THE LETTERS ARE WRITTEN---------->	_____	_____	20 ____
21	WE DOES BE NICE---------->	_____	_____	21*____
22	WE ARE TALKING---------->	_____	_____	22 ____
23	HE WILL HAVE SEEN IT---------->	_____	_____	23 ____
24	SHE DID WENT HOME---------->	_____	_____	24*____
25	SHE WILL BE BEING NOISY---------->	_____	_____	25 ____
26	THEY SEEING IT---------->	_____	_____	26*____
27	SHE WERE LAUCHING---------->	_____	_____	27*____
28	IT WILL BE EATEN ---------->	_____	_____	28 ____
29	THEY HAVE BEEN WATCHING IT---------->	_____	_____	29 ____
30	HE WILL WASH THE CAR---------->	_____	_____	30 ____
31	WE WAS WALKING THERE---------->	_____	_____	31*____
32	THEY KNOW IT---------->	_____	_____	32 ____
33	YESTERDAY THEY SEE IT---------->	_____	_____	33*____
34	HE WANTED THE BALL---------->	_____	_____	34 ____
35	HE WILL BE FISHING---------->	_____	_____	35 ____
36	HE KNEW THE ANSWER---------->	_____	_____	36 ____
37	I AM BEING DRIVEN HOME---------->	_____	_____	37 ____
38	YESTERDAY SHE HAD RIDING ON THE BUS-->	_____	_____	38*____
39	IT HAS BEEN BROKEN BY JIM---------->	_____	_____	39 ____
40	WE HAVE SEEN IT---------->	_____	_____	40 ____
41	SHE WILL HAVE BEEN SELLING IT---------->	_____	_____	41 ____
42	THEY WORKS EVERYDAY---------->	_____	_____	42*____
43	HE WAS WALKING DOWN THE ROAD---------->	_____	_____	43 ____
44	THEY HAD BEEN BEING WATCHED---------->	_____	_____	44 ____
45	THEY DOES DRIVE A RED CAR---------->	_____	_____	45*____
46	I WILL BE THERE---------->	_____	_____	46 ____
47	THE BOY IS GIVEN THE MONEY---------->	_____	_____	47 ____
48	THEY HAS GONE---------->	_____	_____	48*____
49	THEY WERE HAVING A CAR---------->	_____	_____	49*____
50	THEY SEES THEM ALL THE TIME---------->	_____	_____	50*____

age 2

		ENGLISH	NOT ENGLISH	
1	THEY GOES FISHING---------->	_____	_____	51*___
52	THEY ARE BEING WRITTEN ABOUT---------->	_____	_____	52 ___
53	SHE IS BEING GIVEN A RIDE---------->	_____	_____	53 ___
4	THEY IS GOOD WORKERS---------->	_____	_____	54*___
55	HE IS WATCHING---------->	_____	_____	55 ___
56	THEY WILL HAVE BEEN BEING CAUGHT------->	_____	_____	56 ___
7	HE HAD BEEN THERE---------->	_____	_____	57 ___
8	THEY HAVE KNOWN ABOUT IT---------->	_____	_____	58 ___
59	WE WERE LAUCHING---------->	_____	_____	59 ___
0	HE IS GLAD---------->	_____	_____	60 ___
1	THE CAR HAS BEEN BEING DRIVEN---------->	_____	_____	61 ___
62	SHE HAS BEEN IN THE WATER---------->	_____	_____	62 ___
63	YESTERDAY THEY HAD CATCH IT---------->	_____	_____	63*___
4	THE COAT GIVE HIM---------->	_____	_____	64*___
65	YESTERDAY SHE HAD SEEING IT---------->	_____	_____	65*___
66	YOU HAS SEEN IT---------->	_____	_____	66*___
7	THEY HAD GET SEEN---------->	_____	_____	67*___
8	I WAS THERE---------->	_____	_____	68 ___
69	THEY GET SEEN LAST NIGHT---------->	_____	_____	69*___
0	HE DOES BE LAUGHING---------->	_____	_____	70*___
1	HE BEEN THERE---------->	_____	_____	71*___
72	SHE ARE IN THE YARD---------->	_____	_____	72*___
73	YESTERDAY HE BEEN RUNNING---------->	_____	_____	73*___
4	YESTERDAY I HAD SEE IT---------->	_____	_____	74*___
75	THEY LAZY---------->	_____	_____	75*___
76	THEY WALKING HERE---------->	_____	_____	76*___
7	SHE DID SAW ONE---------->	_____	_____	77*___
8	THEY IS ON THE ROAD---------->	_____	_____	78*___
79	YOU WAS KNOW HIM---------->	_____	_____	79*___
0	HE HAS CAME---------->	_____	_____	80*___
1	YESTERDAY HE DID WATCHING IT---------->	_____	_____	81*___
82	SHE HAS A BIG HOUSE---------->	_____	_____	82 ___
83	I WILL HAVE BEEN BEING LAZY---------->	_____	_____	83 ___
4	THEY WERE BEING GIVEN A RIDE---------->	_____	_____	84 ___
85	SHE ARE WALKING---------->	_____	_____	85*___
86	THEY HAS BEEN TO TOWN---------->	_____	_____	86*___
7	THEY HAD SEEN IT---------->	_____	_____	87 ___
88	SHE HAD BEEN GIVEN THE BOOK---------->	_____	_____	88 ___
89	YESTERDAY THEY IS SEE IT---------->	_____	_____	89*___
0	THEY HEARS IT---------->	_____	_____	90*___
1	YESTERDAY THEY HAD KNOW IT---------->	_____	_____	91*___
92	THE FOOD EAT GOOD---------->	_____	_____	92*___
93	THEY ARE HUNGRY---------->	_____	_____	93 ___
4	THEY HAVE BEEN THERE---------->	_____	_____	94 ___
95	HE WAS SEEN---------->	_____	_____	95 ___
96	YESTERDAY THEY CHASE HIM---------->	_____	_____	96*___
7	WE WAS GOOD WORKERS---------->	_____	_____	97*___
98	HE HAS BEEN TAKEN HOME---------->	_____	_____	98 ___
99	HE WILL HAVE BEEN THERE---------->	_____	_____	99 ___
00	THE FISH SELL YESTERDAY---------->	_____	_____	100*___

Examiner_____ Date_____

(C)
1984
John D. Roy

DISCRIMINATION OF VERB + ED

Data__D_D___ Group_____ ID_____ Age_____ Sex____

Listen to these two sentences. Say if they are the same or different.

			Same	Different	code
1.	They hum it.	They hummed it.	____	____	1____
2.	They slam it.	They slam it.	____	____	*2____
3.	They puffed it.	They puff it.	____	____	3____
4.	They wiff it.	They wiff it.	____	____	*4____
5.	They shoved it.	They shoved it.	____	____	*5____
6.	They love it.	They loved it.	____	____	6____
7.	They sipped it.	They sip it.	____	____	7____
8.	They tip it.	They tip it.	____	____	*8____
9.	They grab it.	They grab it.	____	____	*9____
10.	They scrub it.	They scrubed it.	____	____	10____
11.	They open it.	They open it.	____	____	*11____
12.	They pinned it.	They pin it.	____	____	12____
13.	They hit it.	They hit it.	____	____	*13____
14.	They weeded it.	They weeded it.	____	____	*14____
15.	They kissed it.	They kissed it.	____	____	*15____
16.	They knitted it.	They knit it.	____	____	16____
17.	They need it.	They needed it.	____	____	17____
18.	They raised it.	They raised it.	____	____	*18____
19.	They miss it.	They missed it.	____	____	19____
20.	They buzz it.	They buzzed it.	____	____	20____
21.	They wished it.	They wished it.	____	____	*21____
22.	They massaged it.	They massaged it.	____	____	*22____
23.	They push it.	They pushed it.	____	____	23____
24.	They lathed it.	They lathed it.	____	____	*24____
25.	They garage it.	They garaged it.	____	____	25____
26.	They breathe it.	They breathe it.	____	____	*26____
27.	They tell it.	They tell it.	____	____	*27____
28.	They wear it.	They wear it.	____	____	*28____
29.	They bad-mouth it.	They bad-mouthed it.	____	____	29____
30.	They hatch it.	They hatch it.	____	____	*30____
31.	They bathed it.	They bathe it.	____	____	31____
32.	They fudge it.	They fudge it.	____	____	*32____
33.	They spell it.	They spelled it.	____	____	33____
34.	They stare at it.	They stared at it.	____	____	34____
35.	They watched it.	They watch it.	____	____	35____
36.	They kicked it.	They kicked it.	____	____	*36____
37.	They slug it.	They slug it.	____	____	*37____
38.	They hurried it.	They hurried it.	____	____	*38____
39.	They judge it.	They judged it.	____	____	39____
40.	They banged it.	They bang it.	____	____	40____
41.	They ring it.	They ring it.	____	____	*41____
42.	They bake it.	They baked it.	____	____	42____
43	They hugged it.	They hug it.	____	____	43____
44.	They carried it.	They carry it.	____	____	44____
45.	They played it.	They played it.	____	____	*45____
46.	They stay here.	They stayed here.	____	____	46____
47.	They followed it.	They followed it.	____	____	*47____
48.	They allowed it.	They allow it.	____	____	48____
49.	They fly it.	They fly it.	____	____	*49____
50.	They try it.	They tried it	____	____	50____

Examiner_____ Date_____

(C)
1984
John D. Roy

Data__V_S___ Group_____ ID_____ Age_____ Sex____

Change each of these sentences so that it begins with the word He and make any otherchanges that are necessary so the sentence is good English.

1. They slam it. ----------He_____. ___
2. They puff it. ----------He_____. ___
3. They love it. ----------He_____. ___
4. They sip it. ----------He_____. ___
5. They scrub it. ----------He_____. ___
6. They pin it. ----------He_____. ___
7. They knit it. ----------He_____. ___
8. They need it. ----------He_____. ___
9. They miss it. ----------He_____. ___
10. They buzz it. ----------He_____. ___
11. They push it. ----------He_____. ___
12. They garage it. ----------He_____. ___
13. They bad-mouth it. ----------He_____. ___
14. They bathe it. ----------He_____. ___
15. They spell it. ----------He_____. ___
16. They stare at it. ----------He_____. ___
17. They watch it. ----------He_____. ___
18. They judge it. ----------He_____. ___
19. They bang it. ----------He_____. ___
20. They bake it. ----------He_____. ___
21. They hug it. ----------He_____. ___
22. They carry it. ----------He_____. ___
23. They stay at home. ----------He_____. ___
24. They allow it. ----------He_____. ___
25. They try it. ----------He_____. ___
26. They eat it. ----------He_____. ___
27. They come home. ----------He_____. ___
28. They do it. ----------He_____. ___
29. They go home. ----------He_____. ___
30. They see it. ----------He_____. ___
31. They have it. ----------He_____. ___
32. They say it. ----------He_____. ___
33. They are here. ----------He_____. ___
34. They don't hear it. -----He_____. ___
35. They are washing it. -----He_____. ___
36. They are being noisy. -----He_____. ___
37. They are not singing. -----He_____. ___
38. They are not being silly. ---He_____. ___
39. They don't work here. -----He_____. ___
40. They have been here. -----He_____. ___
41. They have not been here. ---He_____. ___
42. They have seen it. ----------He_____. ___
43. They have not taken it. -----He_____. ___
44. They have been promoted. ---He_____. ___
45. They have not been missed. --He_____. ___
46. They have been seen. -----He_____. ___
47. They were watching it. -----He_____. ___
48. They were here. ----------He_____. ___
49. They were not at home. -----He_____. ___
50. They were right. ----------He_____. ___

Examiner_____ Date_____

(C)
1985
John D. Roy

PAST TENSE PRODUCTION

Data__P_P___ Group_____ ID_____ Age_____ Sex____

1.	They hum it	Yesterday they_____	___
2.	They puff it	Yesterday they_____	___
3.	They love it.	Yesterday they_____	___
4.	They sip it.	Yesterday they_____	___
5.	They scrub it.	Yesterday they_____	___
6.	They pin it.	Yesterday they_____	___
7.	They knit it.	Yesterday they_____	___
8.	They need it.	Yesterday they_____	___
9.	They miss it.	Yesterday they_____	___
10.	They buzz it.	Yesterday they_____	___
11.	They push it.	Yesterday they_____	___
12.	They garage it.	Yesterday they_____	___
13.	They bad-mouth it.	Yesterday they_____	___
14.	They bathe it.	Yesterday they_____	___
15.	They spell it.	Yesterday they_____	___
16.	They stare at it.	Yesterday they_____	___
17.	They watch it.	Yesterday they_____	___
18.	They judge it.	Yesterday they_____	___
19.	They bang it.	Yesterday they_____	___
20.	They bake it.	Yesterday they_____	___
21.	They hug it.	Yesterday they_____	___
22.	They carry it.	Yesterday they_____	___
23.	They stay at home.	Yesterday they_____	___
24.	They allow it.	Yesterday they_____	___
25.	They try it.	Yesterday they_____	___
26.	They eat it.	Yesterday they_____	___
27.	They come home.	Yesterday they_____	___
28.	They do it.	Yesterday they_____	___
29.	He does it.	Yesterday he_____	___
30.	They drink it.	Yesterday they_____	___
31.	They hear it.	Yesterday they_____	___
32.	They go home.	Yesterday they_____	___
33.	They bring it.	Yesterday they_____	___
34.	They see it.	Yesterday they_____	___
35.	They begin it.	Yesterday they_____	___
36.	They have it.	Yesterday they_____	___
37.	He has it.	Yesterday he_____	___
38.	They know it.	Yesterday they_____	___
39.	They ride it.	Yesterday they_____	___
40.	They stand it.	Yesterday they_____	___
41.	I am here.	Yesterday I_____	___
42.	They are here.	Yesterday they_____	___
43.	He is here.	Yesterday he_____	___
44.	They drive it.	Yesterday they_____	___
45.	They keep it.	Yesterday they_____	___
46.	They say it.	Yesterday they_____	___
47.	They sell it.	Yesterday they_____	___
48.	They ring it.	Yesterday they_____	___
49.	They sing it.	Yesterday they_____	___
50.	They write it.	Yesterday they_____	___

Examiner_____ Date_____

(C)
1984
John D. Roy

Data__N_S__ Group_____ ID_____ Age_____ Sex____

Tell me what is in the picture. Begin every answer with the number two.
If you don't know what the picture is I will tell you.

1. DRUM _____. ___
2. GIRAFFE _____. ___
3. STOVE _____. ___
4. ROPE _____. ___
5. CLUB _____. ___
6. GUN _____. ___
7. HAT _____. ___
8. SLIDE _____. ___
9. BUS _____. ___
10. NOSE _____. ___
11. EYELASH _____. ___
12. GARAGE _____. ___
13. MOUTH _____. ___
14. LATHE _____. ___
15. BELL _____. ___
16. CAR _____. ___
17. CHURCH _____. ___
18. BADGE _____. ___
19. RING _____. ___
20. CLOCK _____. ___
21. DOG _____. ___
22. COW _____. ___
23. BOY _____. ___
24. TREE _____. ___
25. NEST _____. ___
26. HAND _____. ___
27. BANK _____. ___
28. MAN _____. ___
29. WOMAN _____. ___
30. GIFT _____. ___
31. BOX _____. ___
32. MUM _____. ___
33. BIF _____. ___
34. NEV _____. ___
35. GRUP _____. ___
36. ZEEB _____. ___
37. LUN _____. ___
38. DIT _____. ___
39. JOD _____. ___
40. FES _____. ___
41. MUZ _____. ___
42. LISH _____. ___
43. MEAZH _____. ___
44. TOTH _____. ___
45. MEATHE _____. ___
46. TRELL _____. ___
47. WIR _____. ___
48. KUCH _____. ___
49. WIJ _____. ___
50 GING _____. ___
51. YIK _____. ___
52. WUG _____. ___

Examiner_____ Date_____

(C) 1984

APPENDIX C

Pilot Test Results

Three school psychologists who work in three different districts of the Charleston county school system were asked to cooperate with the project directors in a pilot study during the spring of 1986. They agreed to incorporate one additional test in the assessment battery they would be administering to the new student referrals during that period. The test was an abbreviated version of the five part language assessment instrument. It included the most significant discriminators of the original assessment instrument. This test would be administered to those Black students who demonstrated Gullah influence in their speech.

The procedure was the following: The student was administered the entire WISC-R battery including the optional verbal subtest, digit span, and the language assessment scale. If the student scored below 9.5 on the language scale, he or she would be a candidate for a proration of the WISC-R score. The I.Q. score would be prorated on the following verbal subtest scores: comprehension, similarities, arithemtic and digit span. The rationale was that elimination of the verbal subtests on which the Gullah-influenced students did most poorly (information and vocabulary) and Prorations ~~proration~~ of the remaining subtest scores would be an adjustment to compensate for the negative impact of language variation. Twenty seven students were tested, eighteen were potential candidates for LD classification and nine for EMH classification. Twenty students scored below 9.5 on the language scale. Their WISC-R scores were prorated accordingly. Of these, twelve FSIQ scores increased, nine by 3 points or less, two by 4 points and one by 5 points.

The conclusions derived from subsequent discussions with the school psychologists were the following:

1. Although I.Q. scores did increase by proration, the higher scores were not significant enough in any instance to effect assessment and did not result in a change in the recommended placement.

2. A language assessment instrument can provide valuable information about the language abilities of students and their needs. In turn, it can serve as the basis for a language program tailored to their needs.

3. All students who perform poorly on a test designed to measure control of Standard English should receive special language instruction.

4. An adjusted I.Q. score is not a satisfactory answer to the issue of nonbiased assessment for students whose speech demonstrates Gullah influence.

5. The Charleston Language Assessment Scale would need a number of modificationseliminatedto accommodate the problems encountered in its administration. However such a scale can serve as a model to be used countywide.

The Charleston Language Assessment Scale

Introduction

The five part instrument assesses the knowledge of Standard English among students in Charleston County. The items were selected and the scores normed on the basis of a sample of 360 students in the County.

The order of the administration of the instrument is as follows:

1. Grammatical Judgment

2. Past Tense Production

3. Past Tense Recognition

4. Verb S Production

5. Plural Production

General Administration and Scoring

Each of the five sections is to be administered orally in a quiet room with only the test administrator and the student present. The test administrator and student are preferably to be seated across from each other at a small table. Because each of the sections of the assessment depends upon the student understanding the task, the test administrator must make a good faith effort to insure that the task is properly understood. Within each of the sections the student must properly hear each item. If there is any doubt about this, the item is to be repeated.

The student identifiers on the cover sheet are:

Name_____School_____Class_____
Placement_____Language_____ID_____Age_____Sex_____

These blanks are to be filled in as follows: Name - Enter the student's name - Last, First. School - Enter the official name of the school. Class - Enter the grade. Placement - If the student is in a Special Education class, enter the letters identifying the class type (EMH, LD). If the student is currently in a regular class, enter "R" and the letters (EMH, LD) identifying the probable handicapping condition for which the student is being tested. Language - Enter "E" if the student is white. Enter "G" if the student is black and born in Charleston County. Enter "BE" if the student is black and not born in Charleston County. Enter "O" if the student's first language background is other than English. ID - Do not fill in. Age - Enter the student's age in years at the nearest birthday. Sex - Enter the gender of the student.

The scoring of each section proceeds in the following manner. The student's total correct number for each section is transformed to a deviation score. To calculate the Language Assessment Scale Score, the deviation scores for the five sections are added together and then divided by five (5). If the resulting average deviation is negative, it is subtracted from ten (10). If the resulting average deviation is positive, it is added to ten (10).

Scores of 9.5 and below indicate that the student may have significant difficulty in taking the WISC-R Intelligence Test. If a student scores 9.5 or below, recalculate the WISC-R scores.

DECISION TREE FOR USING THE CHARLESTON LANGUAGE ASSESSMENT SCALE IN STUDENT SCREENING AND PLACEMENT.

IS LANGUAGE ASSESSMENT SCALE SCORE BELOW 9.5?
YES
NO
PRORATE WISC-R VERBAL. USE COMPREHENSION, SIMILARITIES, MATH AND DIGIT.
PROCEED WITH NORMAL SCREENING.
IS PRORATED WISC-R IQ BELOW 70?
YES
NO
IS THERE EVIDENCE OF SUB NORMAL ADAPTIVE BEHAVIOR?
IS THERE EVIDENCE OF NEUROLOGICAL DAMAGE?
YES
NO
YES
NO
E.M.H. AND ADDITIONAL ENGLISH INSTRUCTION
POSSIBLE LD OR REGULAR BOTH WITH ADDITIONAL ENGLISH INSTRUCTION
LD WITH ADDITIONAL ENGLISH INSTRUCTION
REGULAR WITH ADDITIONAL ENGLISH INSTRUCTION

inistration of Grammatical Judgment

The instructions to the student are to be as clear as possible. Tell students that they are to judge the sentence as good English if it sounds e the kind of English that is used in school or in books, and to judge the ntence as not English if it isn't. This explanation ought to be given to student in such a way so that you are convinced that you have made a good th effort to insure that he or she understands. You might say:

> I am going to read some sentences to you. Say "Yes" if the sentence sounds like good English to you and say "No" if it sounds like it is not good English.

may repeat or rephrase these directions if necessary. If the student ems puzzled at any sentence, clarify the task by saying "Is that good glish or not."

ring Grammatical Judgment

Score the response correct by marking a 1 on the line to the right. re it as incorrect by marking a 0 on line. The student must judge those ems marked with an * as Not English in order to be scored as correct. The dent must judge those items not marked with as asterisk (*) as English in er for that item to be scored as correct. Items to which there is no sponse or a response of I don't know, are to be scored as incorrect.

The total number of items correct is to be marked on the line at the tom.

inistration of Past Tense Production

Tell the student that they should change the sentence so that it refers he past, begins with the word" Yesterday" and is changed so that it is d English. Each sentence produced by the student must begin with the word esterday". You might say to the student:

> I am going to read some sentences to you. Change each sentence so that it begins with the word "Yesterday" and make any other changes so that the sentence is good English.

ring Past Tense Production

re each item on the line to the right. If the student produces the correct ndard English past tense, score a 1; if there is no Standard English past nse, score a 0. If the student produces an emphatic past tense 'did + verb' k the student to repeat the item without the 'did'. If the student produces d + verb' or 'had + past participle', ask the student to repeat the item thout the 'had'. If in either of these cases on repetition the student oduces the item in a similar fashion, score the item as incorrect.

you do not hear the response of the student ask the student to repeat the sponse to the item.

total score is the number correct and is entered on the line at the bottom the page.

Administration of Past Tense Recognition

The student is to understand that two sentences are to be read to him or her and that the student is to say whether the sentences sound the same or different. The sentences are to be read in a clear voice and at slow-normal pace with normal intonation. The sentence pairs are to be repeated if there is suspicion that the student did not hear them. The question, "are they the same or different", may also be repeated, if the student appears stuck.

Scoring of Past Tense Recognition

Sentence pairs that are the same have an asterisk next to the item. If the student says that these items are the same, then they are to be scored as correct. If the students says that the asterisked items are different then they are to be scored as incorrect. Items that are different are to be scored correct if the student responds that they are different. Score correct items with a 1 and incorrect items with a 0. Enter the total number correct on the line at the bottom.

Administration of Verb + S Production

In this assessment, the student is to change the subject of the sentence from 'They' to 'He' and change the verb to agree. The instructions to the student are to change the sentence so that it begins with the word 'He' and make any other changes that are necessary so that the sentence is good English and refers to something that <u>usually</u> happens.

Scoring of Verb + S Production

Score a 1 if the verb is presented with the 's' agreement ending and score a 0 if it does not. If the emphatic present -'does - verb' is the response, ask the student to repeat the response without using the 'does'. Write the total number correct on the line at the bottom.

Administration of Plural Production

Ask the student to say a phrase beginning with number 'two' and identify the items in the drawing. If the identity of the item is not clear to the student, point to one of the items and say, "This is a_____. There are two_____." Wait for the student's response. The student must begin his or her response with the number 'Two'.

Scoring of Plural Production

If the student provides the noun plural - a final 's' or with the correct irregular plural form as in 'men', score the item as correct by making a 1 on the line at the right. If no plural form is produced, score a 0. Add the total correct and place the number at the bottom of the sheet.

Converting Total Correct Scores for each Section to Deviations

Grammatical Judgment
Ages 7 thru 14

Total Correct	Deviation
0	-6
1	-6
2	-5
3	-5
4	-5
5	-5
6	-5
7	-5
8	-4
9	-4
10	-4
11	-4
12	-4
13	-4
14	-3
15	-3
16	-3
17	-3
18	-3
19	-3
20	-2
21	-2
22	-2
23	-2
24	-2
25	-2
26	-1
27	-1
28	-1
29	-1
30	-1
31	-1
32	0
33	0
34	0
35	0
36	0
37	0
38	1
39	1
40	1
41	1
42	1
43	1
44	2
45	2
46	2
47	2
48	2
49	2
50	3

Verb + S production

Age 7 thru 11

Total Correct	Deviation
0	-3
1	-3
2	-3
3	-3
4	-2
5	-2
6	-2
7	-2
8	-2
9	-1
10	-1
11	-1
12	-1
13	-1
14	0
15	0
16	0
17	0
18	0
19	1
20	1

Age 12 thru 14

Total Correct	Deviation
0	-4
1	-4
2	-4
3	-4
4	-3
5	-3
6	-3
7	-3
8	-2
9	-2
10	-2
11	-2
12	-1
13	-1
14	-1
15	-1
16	0
17	0
18	0
19	0
20	1

Plural Production

Age 7 thru 11

Total Correct	Deviation
0	-2
1	-2
2	-2
3	-2
4	-2
5	-1
6	-1
7	-1
8	-1
9	-1
10	-1
11	0
12	0
13	0
14	0
15	0
16	0
17	1
18	1
19	1
20	1

Age 12 thru 14

Total Correct	Deviation
0	-2
1	-2
2	-2
3	-2
4	-2
5	-2
6	-1
7	-1
8	-1
9	-1
10	-1
11	-1
12	0
13	0
14	0
15	0
16	0
17	0
18	1
19	1
20	1

Past Tense Production

Age 7 thru 11		Age 12 thru 14	
Total Correct	Deviation	Total Correct	Deviation
0	-2	0	-2
		1	-2
1	-1	2	-2
2	-1		
3	-1	3	-1
4	-1	4	-1
5	-1	5	-1
6	-1	6	-1
		7	-1
7	0	8	-1
8	0	9	-1
9	0		
10	0	10	0
11	0	11	0
12	0	12	0
13	0	13	0
		14	0
14	1	15	0
15	1	16	0
16	1		
17	1	17	1
18	1	18	1
19	1	19	1
20	1	20	1

Past Tense Recognition

Age 7 thru 14

Total Correct	Deviation
0	-9
1	-8
2	-8
3	-7
4	-7
5	-6
6	-6
7	-5
8	-5
9	-4
10	-4
11	-3
12	-3
13	-2
14	-2
15	-1
16	-1
17	0
18	0
19	1
20	1